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**DAY SCHOOLS FOR
YOUNG WORKERS**

The Century Vocational Series

Edited by Charles A. Prosser

Day Schools for Young Workers

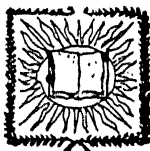
THE ORGANIZATION AND MANAGEMENT OF
PART-TIME AND CONTINUATION SCHOOLS

BY

FRANKLIN J. KELLER, PH.D.

Principal East Side Continuation School, New York City; Lecturer for New York
State Department of Education on Administration and Supervision of
Part-Time Education

Special Lecturer on Administration and Supervision of Continuation Schools in the
College of the City of New York



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To
EVELYN MILES KELLER

PREFATORY NOTE

This book aims to be an exposition of administrative, supervisory, and teaching experience gained in a continuation school serving 12,000 working boys and girls, the largest school of its kind in the world. It incorporates the best thought in the fragments on continuation education already printed. It is presented at a time when the technique of part-time education is still evolving. Enough has been accomplished in the field to warrant at this time a full exposition of successful methods and underlying principles. This the writer has attempted to give.

In a record of experience, such as this book is, it is difficult to make adequate acknowledgment to all those who have directly or indirectly made contributions to it. However, without the whole-souled devotion and intelligent coöperation of the teachers of the East Side Continuation School the book would not have been possible; so to them is due my warmest gratitude. To attempt to detail this delightful adventure would be to tell the story of very happy years. Especially concerned in the success of the school have been my very able assistants, Mr. J. Henry Holloway and Miss Otilie Finken, and my former assistant, Mr. Theodore W. Langenbahn, now in charge of the Bronx Continuation School in New York City. They have contributed in many ways to the content of the book. I am particularly indebted to Mr. Holloway, who has read the manuscript and has sug-

gested many changes and additions which have been incorporated in the book.

To Mr. Morris E. Siegel, Director of Continuation and Evening Schools, has been due the development of continuation schools in New York City. To him I owe the inspiration, the opportunity, and the counsel which have made possible whatever success has been attained. Mr. Cecil A. Kidd, District Superintendent, has been an ever-ready guide and help in solving the problems involved in effective administration.

FRANLIN J. KELLER.

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INTRODUCTION

Compulsory part-time attendance laws have recently established a new training device for juvenile workers in towns and cities. These state laws require all permit workers over 14 years of age who are legally employed to attend school for a period of from four to eight hours per week out of their working time. In some states these regulations apply to those under 16 and in others to those from 14 to 18 years of age. By this legislation, states have asserted their wardship over the education as well as the work of young wage earners within the prescribed age limits. In order to insure for them the benefit of this schooling, attendance has been made compulsory and compliance with the regulations is enforced by penalties upon employer, parent and child.

However it may be phrased, the assumed objective of these schools is to promote the civic and vocational intelligence of those who have left the schools early to go to work. Since most permit workers are employed in temporary juvenile occupations very few of these compulsory schools are called upon to give trade extension training for any skilled or permanent employment. Because they give general rather than trade training, they are technically known as general part-time schools. In popular discussion they are perhaps quite as frequently called continuation schools—a phrase borrowed from the Germans, which was originated to indicate that these

schools provide a continuation of education after the close of full-time attendance.

The situation precipitated. Thus far twenty-seven states have established these schools. The Report for 1922-23 of the Federal Board for Vocational Education shows a total of about 185,000 pupils already enrolled in them. This represents a school population as large as that attending the common schools of the combined states of Arizona, Delaware, Nevada and Vermont and represents a school population greater than that of a city of 1,000,000 people. Most of these laws and schools are developments entirely of the past five years. Sweeping legislation precipitated the problem because there seems no other way in a democracy to get things done. No one, apparently, knew exactly what the job of the continuation school was or how to do it. There was no time to learn except by experience. There was no equipment, course methods, or money available. In this condition these new schools were committed to the public school systems of the various states where naturally they fell largely into the hands of those knowing only traditional education.

Old ideas for a new and vital problem. Here and there some excellent work has already been done with a difficult problem. Almost everywhere the public schools are engrossed and burdened with the affairs of the full time or regular group of students. Many earnest and well meaning educators disbelieved for one reason or another in the wisdom of the part-time plan. There was and is a prevalent feeling that the working youth is less capable and therefore less desirable as a student of academic subjects; that he should drop his work and

attend the full-time school if he wishes any further education; that it is a bad precedent to use public funds on any other group than those remaining in school; that the short time available in the part-time school makes it impossible to teach anything worth while; and, more particularly, that all the money of the schools is needed for the more important duty of doing more and better things for those who are able and willing to attend full time.

With exceptions here and there which make them conspicuous, those in authority over these new and experimental schools struggling from the start against almost every conceivable difficulty and obstacle, have, in discharging their legal responsibility, taken the easiest way. They have housed the new work wherever was most convenient and economical to the administration, often in abandoned school houses. Very frequently abandoned equipment has been turned over for use. The number of cities in which special provision has been made for housing and equipping this new and critical work could be easily counted on the fingers of two hands with fingers to spare!

The easiest way was to assume that the aims and problems of the part-time class are identical with those of the full-time school and that they differ only in the grade of student and the time available for instruction. Consequently we find almost everywhere a continuation of the regular standard subjects, standard teaching material and standard teaching technique. We find also the use of the standard regular school organization and procedure in all of its details. Discipline, for example, is handled in the same way for these independent wage

earners as for sheltered children. Instruction begins in the same subjects and at the same pages where it ceased in the full-time school work of pupils. Book work is still the basis of instruction. Academic standards and tests are the basis of grouping, grading and promoting pupils. Individual needs are lost sight of in the relentless march of academic grouping, group instruction, group testing and group progression.

The foregoing picture is not overdrawn. Even those part-time officials and teachers who are themselves keenly alive to the real problems and responsibilities of these schools know that it is a correct one. The difficulties and handicaps which they face can readily be demonstrated by even a casual examination of the published information chart of these schools, personal visitation, or the testimony of those engaged in it. The situation just described is not universally true. Here and there in the larger cities the work has fallen into the hands of capable leaders who are accomplishing results that justify the legislation and the program and point the way.

The continuation school a new and distinct problem. Already experience has taught even most of those committed to traditional school ideas that the part-time school is in all its aspects a distinct entity and problem which requires special objectives, organization, procedure and methods. Certain things have become apparent to every open mind; the old subject matter taught in the old way does not work. Working youth are not interested in it because it does not appeal to their interests and they cannot use it. Even if they could, the limitation as to time makes its use a waste of money. The real needs of juvenile workers are immediate and definite. They

are readily discernible to those who know the adolescent wage earner and his problems. Service for them requires the meeting of these needs. They cannot be met by formal subject matter, abstract teaching or traditional methods.

Furthermore, the problem of training permit workers cannot be standardized as to groups, needs, objectives, subject matter, methods, organizations, equipment or any other item. None of the traditional procedures works with this group. A special teacher having understanding of youth and work, a winning personality and resourcefulness in the use of participating experience and individual training is the only kind to whom they should be entrusted. Otherwise the results are likely to be anti-social. Most of the vocational education procedures do not work either. While national and state laws have provided for these compulsory continuation schools as a part of the vocational education program, they are a separate and distinct unit differing in most essential respects from the day trade school and the part-time trade extension school. Their purpose is not to train in skills or thinking about skills, but in living and thinking about living. This objective presents in those schools under the given conditions, a distinctly new field, service, task, procedure and opportunity.

The continuation school and the social job. As the work has developed, many engaged in it have come to realize all these things. They are now earnestly trying to find what the continuation school job is and how it can be done. While most of them find themselves hampered in all sorts of ways, they have in their thinking, at least, come to certain conclusions:—the biggest job of

the continuation school is the promotion of the adjustment of juvenile workers to the social job—helping them to better living and better thinking about living. This social adjustment lies in three main fields: 1. the establishment of social attitudes and social habits; 2. the capitalizing of the material or economic assets of the youth; and 3. the development of personal interests and assets for the better enjoyment of life. Certain negative conclusions have also been drawn from experience. General education is not the main job of the continuation school. Vocational education is not the main job. The employed boy or girl requires a different personnel management from the full-time school boy or girl.

All this amounts to an interest-creating, attitude-inspiring, habit-promoting, thought-developing—programs such as can rise only from a wide range of real experience and functioning teaching material. Life is many-sided, and human beings, even working boys and girls, present an infinite variety of interests, aptitudes, traits and situations. Such a program obviously leaves the continuation schools facing many things calling for experiences which they do not know how to get or control or teach, for their pupils. Particularly is this true in the field of social attitudes and habits—a difficulty which has made controlled civic training in all schools such a disappointment. This plan calls for a flexibility in all the organization and procedures of the part-time class, which to many sincere school men amounts to chaos. It also calls for a kind of resourceful teaching that is beyond the ability of many instructors serving satisfactorily in full-time school positions.

What is the problem anyhow? Any plan of in-

struction for the continuation school that is socially minded faces this problem: Given 144, sometimes 288 hours to train working boys and girls, what will you do with this time—what can you do for each individual worker that will be of most value to him and to society? Three points should be noted in this question. Something is to be done not for the group as a whole, but for each *individual* pupil, for his needs are individual. This must be done in a very *limited time*. Whatever is done must be of the *greatest service*—it must be what will help him most and society most. The first two of these points or conditions in the problems are matters of organization, but the last is one of straight thinking about life and adolescent workers.

The problem of individual help can be solved. It has been solved by other teachers and other agencies. Almost all shop work in vocational education is individual instruction, as is all drawing and laboratory work in all schools. Business colleges have, since their establishment, used little group teaching. Ungraded country schools have been compelled to handle pupils in all sorts of ways. Other social agencies such as the Boy and Girl Scouts employ but little of any other method than personal or individual training. What they have done, the part-time school can do if it is provided with teachers willing and able to do it, and freed from the academic notion that all pupils must be taught in groups, tested in groups, promoted by groups.

The problem of limited time. The time is fixed by law. Assume that the standardized teaching material of the full-time school would give juvenile workers help of most value. There is no time to give any amount of it

worth while. Much of it would be only a slight extension or repetition of the same kind of general facts which they have been over once. Many of them are not interested in this material, not, at least, when taught in the old way. Assume that this traditional formal book material does not give help of most value to each individual. Then the use of time for it is a deplorable waste of the time and energy of teacher and pupils, and of public money.

The problem of greatest service is one of straight thinking, not of organization. What things are most valuable to juvenile workers? Of these things, which are given or can be given by other agencies? Which can no other agency give as well? Which can the school and other agencies best give together? Which can the school handle effectively in the time available? These are the questions that need to be answered by the part-time school at the very outset of its program making—not at which point did this group before going to work arrive in arithmetic and geography and grammar and history and physiology.

The continuation school on trial. It will soon be called upon to prove that when it takes 144 productive hours from plant and pupils, it has given a service worth the cost. It would be difficult for many of these schools to meet the acid test that the social gain justifies the expenditure. The progressive people in the work have by their efforts shown that the job can be done and the test be met. After all, the suggestions as to what is best and how to teach offered in this chapter are only an organization in more systematic and detailed form of the kinds of things being done by successful part-time instructors here and there throughout the country.

The real vs. the assumed situation. Any proposal as to what the continuation school should do other than continue to teach traditional subject matter of the regular schools in the orthodox way encounters immediately certain false assumptions which apparently have widespread acceptance. It is necessary therefore to compare the assumed situations with the real situations, which is done briefly in the following table:

TABLE R.

<i>Assumed Situation</i>	<i>Real Situation</i>
1. Pupils all of low mentality.	All grades of mentality.
2. School grade means a definite amount of education in the school sense.	All grades of attainment up to and beyond the maximum set by that grade.
3. School grade means a definite amount of social adjustment.	All grades, degrees and kinds of social adjustment.
4. Only thing to build on is this previous school experience.	Has had 14 to 16 to 18 years of participating experiences outside.
5. This school experience has been and is the most potent influence in his job.	In terms of time about 1:6; in terms of social adjustment, probably less still.
6. Dominating facts and interests in his job.	May have all sorts of dominating facts and interests.
7. School can always teach him some things worth while on his job.	Many cases nothing to teach about job and its processes and demands.
8. Permanence of employment in present plant or line of business.	Tremendous shift from job to job.
9. Shifting of employment undesirable.	In many cases best thing from standpoint of social results.
10. All home conditions more or less desirable.	All sorts of conditions.

If the real situation is as we have described it, then this school becomes at once a new and distinct agency for dealing in whatever ways the service may require with the social conservation of adolescent wage earners—one of the most vital of all educational and social problems. What follows in this chapter is based on the belief that our assumptions about working boys and girls are true.

What the continuation school ought to do. We recognize that the complete plan or scope of the general part-time school should include all the following helps for the juvenile workers:

1. Give every youth as a fundamental service, the necessary minimum of *ability to use the fundamental arts* of reading, writing and figuring.
2. Help him *remove those removable physical defects* that are a handicap to him for life and for work.
3. Some help in his problem of *keeping physically fit*.
4. Some help in his *economic problem* of getting and holding a juvenile job and planning for a more permanent career.
5. Some help in planning and *carrying out activities for his leisure time*.
6. Some help in *acquiring a love of reading*.
7. Some help in *acquiring interests, appreciations and hobbies*.
8. Some help in *selecting and practicing desirable social and economic habits*.
9. Some help in *acquiring interest and initiative in social affairs*.
10. Some help in *acquiring desirable social attitudes and working ideas*.

Every one will recognize and admit that all the services to working boys and girls listed above are highly desirable—if they can be rendered. Even a superficial examination of them shows that they cannot be “taught” out of any text book in 144 hours or, for that matter, taught by the use of a formal text, in any number of hours. They are ends or results that cannot be secured

by the mere teaching of facts about physical defects or jobs or habits or gained by preachment, exhortation, rewards and punishments. They are concrete helps that cannot be "taught" by abstract subject matter and old teaching technique. Progress of the pupil in them cannot be measured by academic tests or graded on any academic basis, nor can the work be evaluated in terms of credits or entrance requirements to some higher institution of learning. If all these things are essential to a "school" then the continuation class is not a school. Rather, it is a working laboratory about life and a service station for working youth whose results must be measured only by the degree to which, as someone has so well said, "it definitely puts his feet on the road to somewhere."

An inspection of the foregoing list of deficiencies and needs, helps and services, call them what you will, shows a number of features that need to be pointed out here:

1. They do not constitute a course of study or a list of subjects to be "taught" in the ordinary sense, but a recital of the kind of services working boys and girls need from teachers.
2. As the underscored words show, in every item the youth is to do something, the teacher only to help him to do it better—doing by the pupil, help from the teacher.
3. Every pupil does not need all these things, nor do pupils needing the same thing have the same deficiencies or weaknesses in equal degree—a situation that requires much individual treatment of pupils.
4. Help in acquiring certain desirable habits is called for from a teacher who controls a period in the life of a pupil equal to about six full days a year—a service that can be rendered, not by school room control and drill in habits, but only as a resourceful and inspiring teacher can de-

wise ways for getting pupils intelligently to think about habits and to practice them voluntarily, and on their own time. 5. Interests and appreciations, attitudes and ideals are stressed as they should be, but as thinking outlooks on life, not as vague emotions and sentiments.

Precipitated by legislation as it was, the continuation school constituted not only a new problem, but one that had to be worked out in the light of experience. Fortunately, as always happens in this country, a group of thinking leaders have been constantly at work studying the problems and the needs of these schools. Among them must be ranked high the author of this text. All the foregoing represents his point of view and his convictions as to the aims and methods needed by classes serving the real economic and social needs of wage earning boys and girls. This text is his contribution to the cause and to the service.

He has had a rich experience as a supervisor of continuation school work in the largest city of the nation where the largest number of working boys and girls are attending instruction. Every problem to be met in this service is found in the classes for which he has been responsible and perhaps found in a much more intensive and extensive form than anywhere else. An examination of the text will show that he has grappled with every one of these problems; so much so that the book constitutes, as a whole, a veritable handbook invaluable to those who in any way are engaged in the training of adolescent workers.

Above all, Mr. Keller has been a close student of the part-time movement. Those who know him best know that he has had from the first an intensely enthusiastic

interest in the effort to provide further education for juvenile wage earners, and has given himself wholeheartedly to the supervision and administration of continuation classes; to an intelligent study of their difficulties and needs and to experiments in ways of meeting them. It is not at all difficult to predict that this text, issued in the early days of a new and great educational movement, will play a most influential and constructive part in setting the feet of this new service to youth on the road to somewhere.

C. A. PROSSER.

DAY SCHOOLS FOR YOUNG WORKERS

CHAPTER I

THE FUNCTION AND OBJECTIVE OF THE CONTINUATION SCHOOL

1. Purpose and Scope of the Continuation School.

The continuation school provides "opportunity" tempered by "guidance."

General provisions for part-time schools.

The place of the part-time school in an educational system.

2. Specific Aims of the Continuation School.

The primary, direct, or immediate aims of the continuation school.

a. Vocational guidance.

b. Placement.

c. Coördination.

d. Prevocational, trade preparatory, and extension training.

e. Practical English, arithmetic, civics, history, literature, or any other subject reasonably desired by the pupil.

f. Practical hygiene and physical training.

The secondary, indirect, or ultimate aims of the continuation school.

g. The development of each individual to his fullest capacity.

h. The health of the body social and politic.

Specific aims differ with reference to particular groups of pupils.

The aim as affected by size of school.

3. Stated Aims of Continuation School Authorities.

Kerschensteiner on *Education for Citizenship*.

California—a citizenship program.

Massachusetts—bridging the gap between the school and employment—a substitute for apprenticeship.

New York State—citizenship and vocational guidance.

Federal Board for Vocational Education—supplying efficient workers to employers.

Port Sunlight—education for profitable as well as happy leisure.

Making up the deficiencies of the regular school.

Specific aims and means are necessary to carry out general aims.

4. Why Must We Have Continuation Schools?

Dewey on *Occupation*.

The school's message to the child.

1. Purpose and Scope of the Continuation School

The continuation school provides "opportunity" tempered by "guidance."—Stripped of all technical phraseology, the aim of the continuation school is to provide young working boys and girls with those educational advantages of which they have been deprived by economic circumstances and with the social and vocational guidance which is usually omitted from the curriculum of the full-time school. The continuation school commands consideration, however, not as the "continuation" of activities carried on in any other school, but rather as an institution functioning to prepare the pupil for life itself. Unlike any other type, excepting the coöperative school, the continuation school seeks the immediate betterment of every phase of the worker's life and at the same time directs its attention to the varied aspects of the pupil's future. The continuation school is not a sop to the unfortunate, nor is it a substitute for a waning apprenticeship system. It occupies a unique and essential position in the present-day organization of society. Our institutions, our customs, our community morale are driving forces which find in it the aptest instrument which they may employ to bring these future men and women into complete harmony with the aspirations of the community. It does this with consideration for the well-being of the individual, with an eye to progress, and hence to the health and advancement of the social body itself.

The dire needs of those whom it serves should stimulate the development of an exquisite technique lest any

precious minute of the allotted four or eight hours a week be made futile and it fail of its mighty attainment. This aim challenges boards of education and school superintendents to provide generous housing and equipment and most competent teachers for the education of young workers. It becomes a faith, impelling teachers and administrators to inspire individual boys and girls to the loftiest ambitions and thus to accomplish the betterment of the entire community.

As will be shown in some detail in the following chapter, the compulsory day continuation school is a natural outgrowth of numerous public-spirited attempts to enable workers of all ages to appreciate and enjoy wholesome entertainment, to acquire knowledge, and to develop vocational efficiency which would otherwise be inaccessible to them. In these early attempts attendance was voluntary, and the instruction was received during leisure hours, in the evening or on Sunday. The subject-matter ranged from religion to industrial processes. The key-note was opportunity—opportunity for those who through force of circumstances had not reached the desired goal. At the present time when attendance has become compulsory for young workers and takes place during regular working hours, opportunity is still the key-note, for which should not be substituted any mere notion of “training for industry” presented by those whose sole god is production or of “culture” by schoolmasters whose god is education for its own sake. In the United States the impulse came from two sources. Employers found it more and more difficult to procure workers capable of filling jobs requiring skill. The apprenticeship system in its old form no longer met the

needs of industry, and a sufficient number of boys could not avail themselves of the full-time trade school, even where one existed. On the other hand, social workers and schoolmen realized that for various reasons children between 14 and 16 were leaving school in vast numbers, unfitted for vocational and social life. It was to satisfy both these points of view that this type of education was developed.

General provisions for part-time schools.—As a part of the system of public compulsory education, the part-time school is to-day an accomplished fact. It is a going institution, not only in the number of children attending, but in its capacity to function. The older schools have existed long enough to have gained the full confidence and undivided support of their local communities. Were the mandatory state laws repealed the schools would continue to operate. As in full-time education, the compulsory features continue to be necessary only to assure an equality of opportunity to all. In twenty-three States, legislatures have passed laws charging local communities with the establishment of schools where working boys and girls may continue their education during the hours of the working day. When it is noted that in the city of New York alone the complete program involves 120,000 or more children between the ages of 14 and 18, it is seen that the administration of part-time schools ranges itself alongside the major problems of education. The following table from the New York State Department of Education bulletin on continuation schools indicates the scope of these schools in the United States.

Provisions of Part-time Compulsory Education Laws

STATE	LAW IN EFFECT	MINIMUM NUMBER OF MINORS REQUIRED TO ESTABLISH CLASSES	AGE OF REQUIRED ATTENDANCE	HOURS OF REQUIRED ATTENDANCE A WEEK	LENGTH OF SCHOOL YEAR
Arizona	1919	15	14-16	5	150 hours
California	1920	¹ 12	14-18	4	Same as public schools
Delaware	1921	15	12-16	4	36 weeks
Florida	1921	² 15	14-16	...	144 hours
Illinois	1921	20	14-18	8	Same as public schools
Iowa	1919	15	14-16	8	"
Massachusetts ..	1920	³ 200	14-16	4	"
Michigan	1920	50	14-18	8	"
Missouri	1919	25	14-16	4	"
Montana	1919	15	14-18	4	"
Nebraska	1919	15	14-16	8	144 hours
Nevada	1919	15	14-18	4	Same as public schools
New Jersey	1920	20	14-16	6	36 weeks
New Mexico ...	1919	15	14-16	5	150 hours
New York ...	1920	⁴ 200	14-18	4-8	Same as public schools
Ohio	1921	(⁵)	16-18	4	144 hours
Oklahoma	1919	20	16-18	...	144 hours
Oregon	1919	² 15	14-18	5	Same as public schools
Pennsylvania ..	1915	30	14-16	8	"
Utah	1919	15	14-18	4	144 hours
Washington ...	1920	⁶ 15	14-18	4	Same as public schools
West Virginia ..	1921	50	14-16	4-8	144 hours
Wisconsin	1911	(⁷)	14-18	(⁷)	8 months

¹ High school districts having 50 or more pupils must establish part-time classes.

² Attendance upon evening school may be substituted.

³ Referendum law adopted by all towns affected except one.

⁴ Establishment required only in cities of over 5000 population.

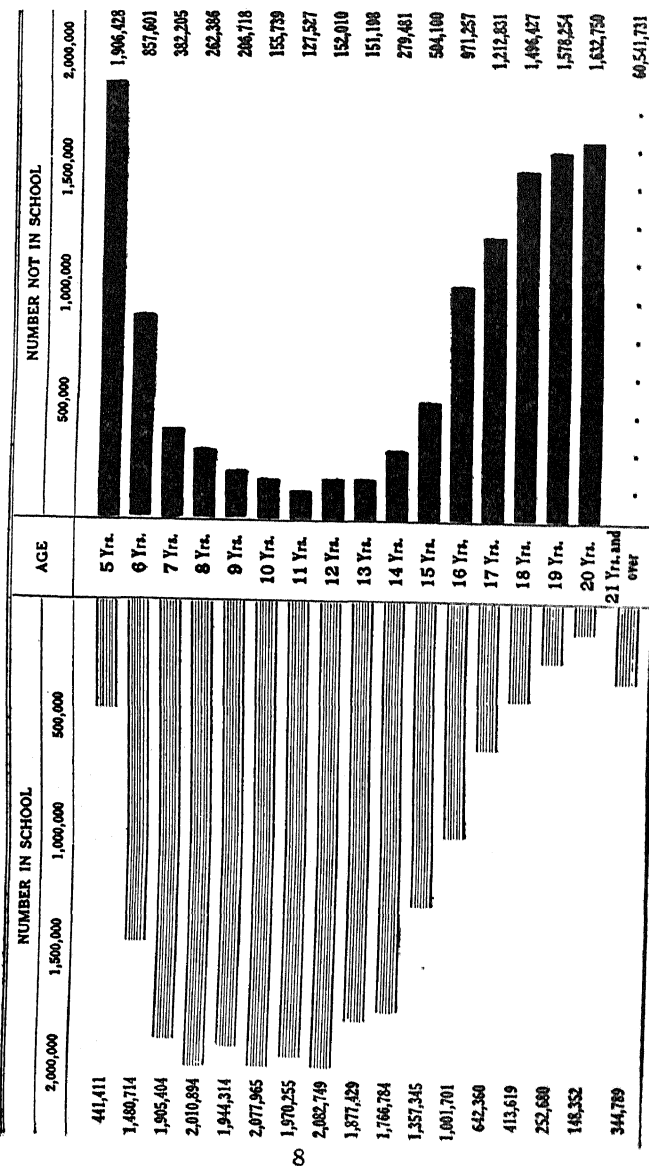
⁵ Permissive, mandatory.

⁶ Districts may organize schools upon written request of 25 students.

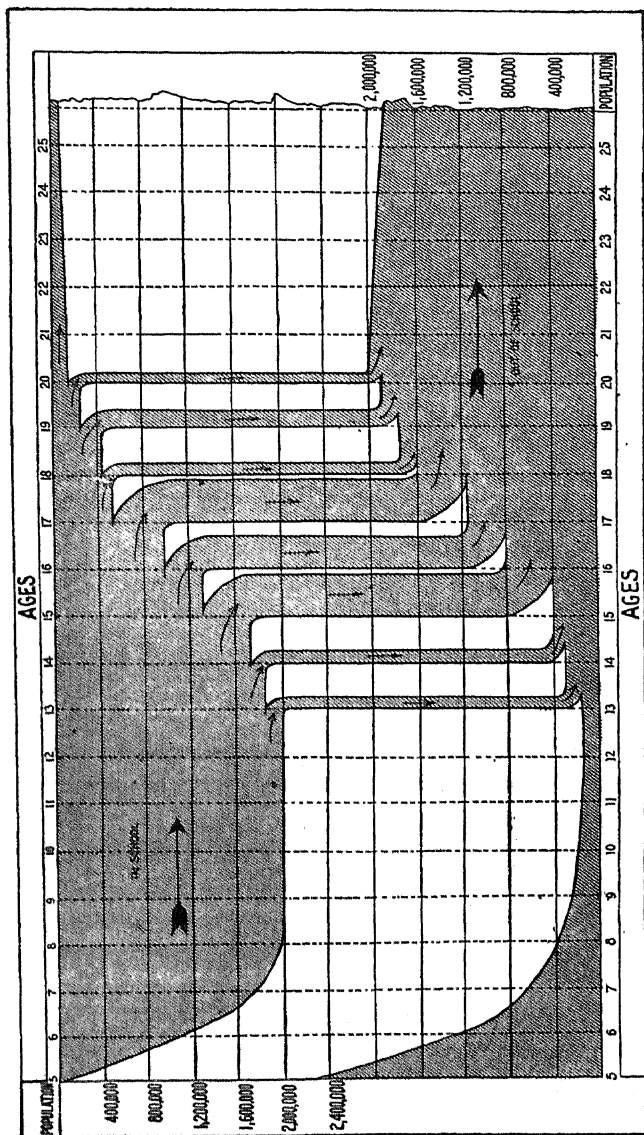
⁷ 14 and 15 year old children half-time; 16 and 17 year old children 8 hours a week.

The study of the Federal Board for Vocational Education, the results of which are here reproduced, indicates the magnitude of the problem. Three million children between 14 and 18 years of age out of school! It is with these that the part-time school must do its work.

I. BOYS AND GIRLS IN SCHOOL AND NOT IN SCHOOL, 1920

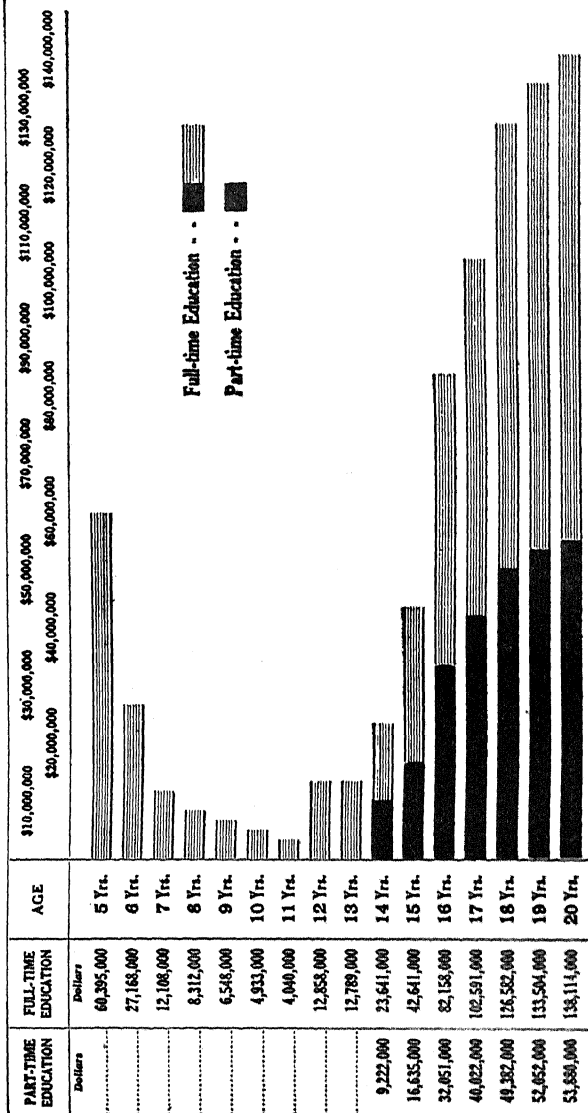


II.—BOYS AND GIRLS IN SCHOOL AND NOT IN SCHOOL, 1920—A GRAPHIC PRESENTATION




III.—BOYS AND GIRLS NOT IN SCHOOL—WHAT IT WOULD COST IF THEY CAME BACK TO SCHOOL FOR FULL-TIME AND FOR PART-TIME EDUCATION


FOR BOYS AND GIRLS NOT IN SCHOOL—COST OF FULL-TIME AND OF PART-TIME EDUCATION




STATISTICAL ABSTRACT, 1911

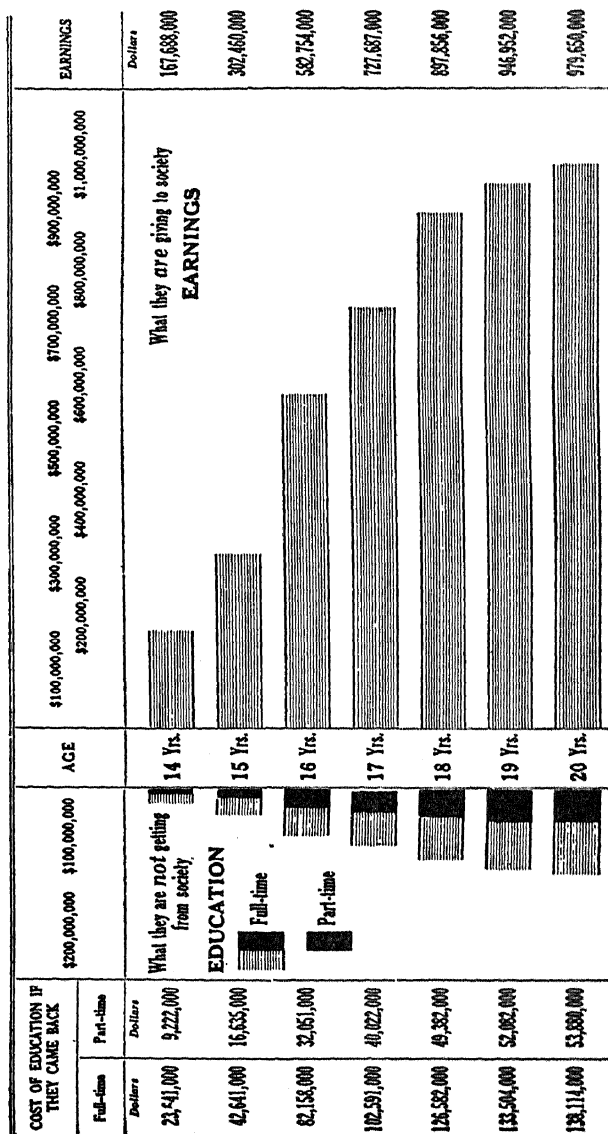
IV.—NUMBER NOT IN SCHOOL IN THE AGES 14, 15, 16, AND 17 YEARS AND NUMBER ENROLLED IN FEDERALLY AIDED PART-TIME AND EVENING SCHOOLS—ALL AGES

Boys and girls 14, 15, 16, and 17 years old not in school— 1920.	- - - - 2,967,651	
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Enrollment in Federally aided part- time schools, all ages —1920-21.	- - - - 139,118	
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Enrollment in Fed- erally aided evening schools, all ages— 1920-21.	- - - - 78,017	
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V.—EARNINGS OF BOYS AND GIRLS NOT IN SCHOOL COMPARED WITH COST OF PART-TIME AND OF FULL-TIME EDUCATION



* BUREAU OF LABOR STATISTICS

VI.—EXPENDITURES FOR EDUCATION AND EARNINGS OF 14, 15, 16, AND 17 YEAR OLD BOYS AND GIRLS NOT IN SCHOOL

IN 1917-18, EXPENDITURES FOR EDUCATION OF ALL TYPES IN PUBLIC AND PRIVATE KINDERGARTENS,
ELEMENTARY AND HIGH SCHOOLS, COLLEGES AND UNIVERSITIES, TOTALLED \$1,059,934,803

IN 1920, ESTIMATED EARNINGS OF 14, 15, 16, AND 17 YEAR OLD BOYS AND
GIRLS NOT IN SCHOOL, TOTALLED \$4,605,049,200

Cost of education—
1917-18. . . \$1,059,934,803

{ What society pays for
education of all kinds.

Earnings of 14-17
year old boys and girls
not in school—
1920. . . \$4,605,000,900

{ What the 14-17 year
old boys and girls out
of school contribute to
society.

Total expenditures of
Federal, State, and local
money under the Voca-
tional Educational Act.
. . . \$11,672,160



REPRODUCED FROM THE OFFICE

The place of the part-time school in an educational system.—The general function is to provide:

a. *Vocational guidance* for boys and girls, usually between 14 and 16 years of age, who leave the full-time school and are too young or too poorly prepared, or both, to know what their occupation will be, or, if their choice has been made, to obtain a position where training is given.

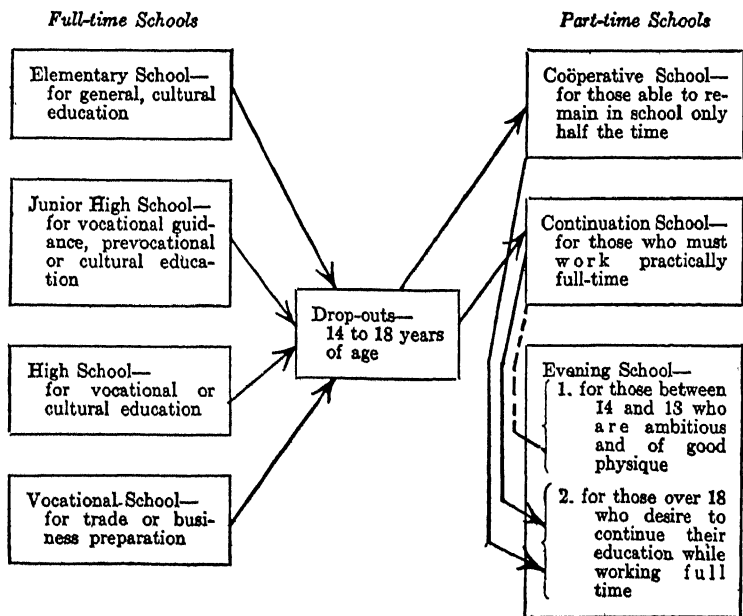
b. *Assistance in the vocational training* of boys and girls, usually between 16 and 18, who have found a place in industry but cannot obtain training which will assure promotion.

c. *Training in good citizenship* for young workers who have left school before good social and civic habits have become part of their lives.

d. *Means for happy and wholesome leisure* of boys and girls whose social, educational, and industrial background has deprived them of advantages usually enjoyed by their more fortunate fellows who have been able to remain in the full-time school.

The position of the part-time schools (including co-operative and evening schools) is shown diagrammatically on the opposite page.

It is understood that continuation school pupils may also attend evening school, but that attendance upon the latter should not replace the former. In this connection it may be noted that evening school is a makeshift until civic consciousness can be aroused to the point of guaranteeing to every person regardless of age a continuing education, without penalizing the worker by making him toil ten or twelve hours a day for several days a week.



THE RELATION OF FULL-TIME TO PART-TIME SCHOOLS

The full lines denote the possible routes pupils may take. The broken line indicates that some pupils may attend *both* day continuation and evening schools.

2. Specific Aims of the Continuation School

The primary, direct, or immediate aims of the continuation school.—These are:

a. *Vocational guidance.* The continuation school is primarily the young worker's school. The pupil leaves the full-time school to enter employment but in most instances with no knowledge of the impelling forces in life. The continuation school should utilize every known means of guiding him into the right employment, especially featuring prevocational work which reproduces as closely as possible conditions in the industrial world. The school should in no sense limit the ambitions of the pupils to the trades or to commerce or to agriculture, but should be just as eager to promote the aspirations of the poet and the lawyer and the musician.

b. *Placement.* One of the most obvious shortcomings of the young worker is his unintelligent job-seeking. He just gets *a* job when he should seek *the* job. Without the continuation school he finds conditions against him, and there is much to condone his lack of foresight and insight. An essential, almost inevitable function of the continuation school is to place young people in those desirable jobs for which they possess aptitude and to educate employers into wanting these young workers in their employ.

c. *Coördination.* Liberally construed, coördination means the interweaving of school activities with all phases of the child's life. In its restricted sense it means that the teacher, through visits to the employer and the parent, learns the needs of the individual child and then, through instruction and counsel, attempts to meet these

needs. Perhaps in the immediate future it will be only a means, a method of making vocational guidance, placement, and training something alive and vital. However, ultimately it is an aim, for the continuation school must lead educators to a realization that no type of school can pretend to "prepare for life" unless there is daily contact with life, with industry, with the home, and with organized social forces. This is what is meant by systematic coördination.

d. *Prevocational, trade preparatory, and extension training.* In the sense that a trade or a technical school gives vocational training it is probable that the continuation school cannot encroach upon the field of either. Its time is too short. There are, however, very definite tasks to occupy the continuation school. The young worker should be given every opportunity to try out various vocations until the teachers discover his aptitudes and the pupil finds himself. This is *prevocational training*, yet it is guidance rather than training. It is a most important service for the continuation school. For the pupil too young to enter a trade but with aptitudes well indicated, preparation for later entrance is provided. A grounding is given in the occupation without attempting the thoroughgoing discipline required of the skilled worker. *Trade preparatory training* is desirable and feasible. For the older pupils the particularly fruitful field is that of *extension training*. While engaged in a particular field of work the pupil is given supplementary instruction in school. "Occupational preparatory" and "occupational extension" training should be as broad and varied as the results of vocational guidance may indicate as necessary.

e. *Practical English, arithmetic, civics, history, literature, or any other subject reasonably desired by the pupil.* There should be no limit to the curriculum of the continuation school. If it is an opportunity school it should offer opportunity. There will be administrative difficulties. Some courses may have to be extra-mural, or centralized for a whole district. Many expedients may have to be resorted to, but the propriety of giving such opportunity courses, with the one proviso that they supply a vital need, cannot be seriously questioned.

f. *Practical hygiene and physical training.* The citizen and worker must have a healthy body in which to carry around his skill and his good intentions. Personal, social, and industrial hygiene, both in theory and in practice, should be an essential element in the curriculum of the continuation school, while physical training should develop the body of each individual.

The secondary, indirect, or ultimate aims of the continuation school.—These are:

g. *The development of each individual to his fullest capacity.* With variations and modifications this has been a general aim of the full-time school, but the continuation school exists for him who has been the victim of economic stress or who, for some reason to be ascribed either to the individual or to the regular school, has not been able to adapt himself to the traditional methods of elementary education. Formerly this development was accomplished largely through the domestic system of production or through the apprentice system. The continuation school replaces these.

h. *The health of the body social and politic.* The tendency to drifting, through the ignorance and the rest-

lessness of many youths, between the ages of 14 and 18 who leave school during that period, can be capitalized for good. The varied experiences involved in many contacts can be given educational significance by the school. Regardless of economic or political belief, there can be no question of the danger of lack of skill, lack of knowledge, and lack of morals. The continuation school is a potent force for good, and contributes to the stability that obtains in a progressive society. If the continuation school does its part in arousing in these youths a realization of the potentialities of life in relation to their fellow-men, social health rather than disease will be the inevitable result. Kerschensteiner has emphasized this point: ⁸

"Knowledge of civics is not the most pressing need of our schools. The first and most pressing need is the exercise of civic virtues. A knowledge of civics can be obtained without the intervention of a school. There are not only hundreds of books which satisfy requirements and are suited to the most modest as well as to the most ambitious of intellects: the organs of all parties do their utmost to supply any lack of school instruction in this respect. Civic virtues, however, flourish only on the foundation of a systematic civic education. No number of books and no amount of teaching will ever produce them. Civic knowledge may be possessed by the most hardened egoist as well as by the most arrant rogue, and civic virtues may be found where knowledge of the work and working of a State is entirely absent. In the organization of the continuation and technical schools (and in other institutions also) everything depends on insuring a proper grasp of the connections between the interests

⁸ Georg Kerschensteiner, *Education for Citizenship*, p. 97.

of the individual and those of the State. Opportunities will be afforded in the school by a systematic introduction to the exercise of self-command, justice, and unselfishness under a strong feeling of responsibility.

"Our continuation school will become a valuable school for civic education only when its organization is permeated with the thought that moral education is more important than intellectual and that this moral education can be given only by cheerful work in the service of others. Only in this way can the pupil recognize that his own aims and purposes are essential elements of the aims and purposes of the nation, that is to say, that the well-organized State has the greatest possible value for him. Only in this way shall we succeed in winning the ready and sincere coöperation of the most straightforward members of all political parties, because civic education in this sense must be appreciated by all persons of honorable motives."

Specific aims differ with reference to particular groups of pupils.—These specific aims apply to all types of pupils, but it is peculiarly important, as Dr. Snedden points out,⁹ for this type of school "that aims, purposes, or objectives be clearly defined, and with reference to particular groups of pupils. The aims for girls will differ from those for boys; the aims for retarded pupils will differ from those for bright pupils; the aims for the healthy will differ from those for the unhealthy; the aims for those employed in the factory callings cannot be the same as those for the mercantile callings." Stated practically, this means that the business of the school, in its vocational guidance phase, is to lay out for each

⁹David Snedden, *Vocational Education*, p. 214.

individual pupil, or for groups where they are homogeneous, a vocational course and a plan of life. It should point out to him or her *his* or *her* particular opportunity in life.

The aim as affected by size of school.—This same general principle indicates the relation of the large to the small school. The administrator of a small school or the teacher of the one continuation class in a small town is likely to bemoan the lack of opportunity for “real continuation school work” and at the same time fail to take advantage of the numerous methods of meeting the needs of individual pupils. A discussion of the variety of opportunities afforded by the social complex of the large city will suggest many expedients for a small, and in all likelihood simple, group in a small community. If the administrator keeps in mind the fact that continuation school education is essentially the problem of the individual pupil and that mere accretion of pupils neither heightens nor lowers the importance of the problem, he will not be awed or discouraged by the large school, but will be inspired to draw from the experience of all types of schools the kind of material he needs for the success of his own work.

3. Stated Aims of Continuation School Authorities

Where compulsory continuation schools have been established there is general agreement as to the aim and purpose of these schools notwithstanding some difference of emphasis and considerable difference in practice. It is only through an appreciation of what the various continuation school systems and their administrators are striving for, and at the same time what the broadest con-

ception of the continuation school connotes, that principles of administrative and supervisory practice can be understood.

Kerschensteiner on "Education for Citizenship."—In a prize essay under this title, Georg Kerschensteiner, Director of the Munich Public Schools, and one of the most noted of the continuation school exponents, enunciates the belief that the best, in fact the only, adequate education for citizenship is training for vocational efficiency. In view of this theory the Munich continuation schools are organized on the basis of specialized industries and the pupils for the most part have the status of apprentices.

"The first aim of education," says Dr. Kerschensteiner, "for those leaving the primary school is the development of trade efficiency and love of work, and with this the development of those elementary virtues which effectiveness of effort and love of work immediately call forth,—conscientiousness, diligence, perseverance, responsibility, self-restraint, and dedication to a strenuous life.

"In close connection with this the second aim must be pursued: to gain an insight into the relations of individuals to one another and to the State, to understand the laws of health, and to employ the knowledge acquired in the exercise of self-control, justice, and devotion to duty, and in leading a sensible life tempered with a strong feeling of personal responsibility. . . .

"We must oppose the view that the aim of education is to be sought exclusively in the purely technical training for an occupation, a view which regards efficiency in work as a sure guarantee of civic virtues. In this there is a

great danger of encouraging selfishness, both professional and personal. A school which devotes not a single moment of the day to any other interest than that of personal advantage or the desire to become an expert worker so as to gain the greatest possible advantage over competitors in the economic struggle, is scarcely a suitable nursery of civic virtue. On the contrary, one often observes in these cases that the attempt to gain expertness in the shortest possible time is apt to result even in serious injury to health.”¹⁰

California—a citizenship program.—The California State Board of Education has set up a program embodying the citizenship idea with all its implications.¹¹ “The underlying purpose of compulsory part-time education is to train as far as may be possible in the short time allowed, for the most important duties and responsibilities of citizenship. . . .

“A *complete program of education for citizenship* would in detailed application also carry with it instruction in subjects that would serve for his spiritual, mental, and physical recreation. While these subjects are very important for some, they are relatively of minor importance for most part-time pupils. They contribute only indirectly to efficiency in citizenship and should not, therefore, as a rule, be given a definite place in the program of studies for part-time pupils. However, the teacher should stimulate and guide pupils in their pursuit outside of school hours.

“The principal duties of the citizen are:

¹⁰ Georg Kerschensteiner, *Education for Citizenship*, p. 25.

¹¹ California State Board of Education, *Vocational Education*, Bulletin No. 23, P-T. E., p. 25.

- "1. To be obedient to social law and custom.
- "2. To develop and preserve a clean, strong body.
- "3. To contribute to the welfare of society by performing some useful work.
- "4. To stand ready at all times to defend his country from its foes, visible and invisible.
- "5. To be considerate of the privileges of others and tolerant of their harmless variations.
- "6. To be a real democrat in ideal, in thought, and in action.
- "7. To exercise the franchise intelligently.
- "8. To be willing to accept public office if offered the same and if competent to perform the service as well as, or better than some other person. . . .

"It should be quite evident that education for and training in all of the above duties of citizenship cannot be provided for in the course of instruction for part-time pupils; nor may education for and training in any one of these duties be completed in such a course. . . .

"The Part-time Act provides for instruction in vocational subjects, instruction in the common branches, and instruction in the duties and responsibilities of citizenship not covered by vocational training.

"It is the function of the part-time class to provide for each individual instruction which will remove any deficiency in knowledge of the most important and immediate duties of citizenship. In general, these duties are important in the order in which they are treated above:

"In providing instruction in citizenship in the past, this order has been almost completely reversed. The

source for such instruction has been largely confined to history and civics. These subjects place emphasis upon the fabric of government and the duties of officers, and, upon the whole, train only for official service or for franchise duty. While these are extremely important, they are of secondary importance when compared with moral duties, and the duties of being economically independent and of contributing to society through successful work.

"While intelligent obedience to law and custom is of most importance, health education is next in importance. The instruction in the duties and responsibilities of citizenship and in the control of health conditions should include the supervision of the everyday activities of the pupils in all matters relating to their moral and physical growth and development. It should also include a study of the reasons underlying right moral and right physical action."

Massachusetts—bridging the gap between the school and employment—a substitute for apprenticeship.—In Boston, where continuation education received recognition as early as 1913, the basic idea is that of training the young worker for industry, of making possible, through the school, the kind of development of skill which was once obtained through indenture to a master worker. There is still the thought of civic training and of a more nearly perfect democracy, but these come rather as by-products.

"Industry is not organized¹² to make possible the training of young workers. The old apprenticeship system is a thing of the past. Operatives are not taught

¹² Commonwealth of Massachusetts, Bulletin of the Department of Education, Whole No. 111, *Compulsory Continuation Schools*.

successive processes because of the feeling that production would thereby be curtailed. Special operations require little general knowledge of an entire business and many young workers remain on unskilled jobs at low pay even when possessing capacity for skilled labor. Employees who know an entire business are scarce. For these reasons the number of workers prepared for promotion to positions as foremen and superintendents through industry alone is inadequate.

"Industrial activity is educational up to the point where opportunity for development is exhausted. Then such activity ceases to be educative and workers become mere operatives. Monotony resulting from such uneducative and low skilled work either engenders restlessness and leads to constant shifting from job to job and from occupation to occupation or reduces the child's existence to a deadening rut of routine that makes for social unrest and tends to accentuate dormant vicious proclivities.

"Homes are not always in a position to give the guidance and instruction which their children need. Industry is not so organized that this guidance and instruction can be given in employment. Part-time or continuation schools offer the most promising agency for doing this work. It is obviously in the interest of the state to encourage, even require, that each prospective citizen reach the highest degree of efficiency of which he is capable. The state's obligation to those children who leave the regular day schools for employment is as great as is its obligation to those who remain within the schools.

"Continuation schools are the direct outcome of modern industrial development, the subdivision of labor, the introduction of machinery, the growth of large plants

where the individual is lost, the passing of apprenticeship, and the growing conviction that the state must provide educational opportunity to meet the needs of all its children.

"The task of the continuation school therefore becomes plain. The gap between the idealistic school life and the practical life of employment must be bridged. The means of intellectual and educational advancement which were lost with the passing of the apprenticeship system must be replaced. Society must be protected by reducing the ranks of the unfortunate and the ignorant. Further training in the fundamentals of education must be given but it must be offered in such form as the young worker will accept. The deadening influence of automatic work must be offset and a more perfect democracy must be established by affording each young worker his opportunity to make the most of himself. The young employee must be trained for useful, satisfying work as a reaction against the influences which tend toward parasitic existence; he must learn to occupy his time with wholesome self-improving activities; he must be aided in determining his most promising aptitudes; he must be assisted in forming habits of economy and thrift; he must be guided to make the best and most of himself and of life.

"The continuation school by emphasizing the interdependence of employer, employee, and community, and by analyzing normal steps in promotion that operate in industry, must ever deal with the individual child rather than with the subject of instruction; must show to each child his door to opportunity; must train him to keep that door open; must foster in him interest in his general self-betterment; must make clear the progressive steps

leading to economic independence and must keep him on the 'road to somewhere.' ”

New York State—citizenship and vocational guidance.—While the training of the worker is made an incidental aim, vocational guidance and citizenship are stressed in the New York State program. It is emphatically stated that the school is not an agency to “continue” the subjects and methods of the full-time school.¹³

“The part-time school is not an institution intended to provide training to make up for deficiencies in the general education of boys and girls who leave the regular schools between the ages of fourteen and eighteen, nor is it to be regarded as a substitute for the regular school. Obviously it is impossible to accomplish in from 4 to 8 hours of instruction a week that which the full-time schools find it difficult to do in from 25 to 30 hours of work a week. Rather the part-time school will attempt to make the break between the school life of the child and the work life of the child less difficult through some properly adjusted plan of vocational guidance and vocational training which will take into consideration the practical aspects of an individual's duty as a citizen and his potentialities as a worker. To this end the part-time school will concern itself with the explanation in an elementary way of the various institutions which society has developed for its own protection and perpetuation and for the welfare of the individuals who constitute that society. It will help the child to choose a vocation, to improve his leisure and will serve to make him generally

¹³ University of the State of New York, Bulletin No. 697, *Organization and Administration of Part-time Schools.*

a better citizen. In as far as it may be possible it will give definite training for the vocation which the child chooses and engages in."

Federal Board for Vocational Education—supplying efficient workers to employers.—While recognizing the advantages to individual employees, the Federal Board for Vocational Education lays considerable stress upon the benefits to be derived by the employer: ¹⁴

"The employer, also, must remove his opposition to the introduction of this system of vocational training. There is no longer any excuse for considering it an innovation of uncertain effect upon production in the factory. It will necessitate changes and increase administrative burdens, bringing such unaccustomed procedure as the rotation of men in a series of jobs, the shifting of men from shop to shop, the possible idleness of some machines for short periods, and various conditions more or less abhorrent to the methodical manufacturer and business man. In return for this, however, the part-time system will provide him with more ambitious and better operatives, employees preparing and prepared for advancement, capable foremen, and perhaps even assistant superintendents. Of equal importance, although not so well recognized, it will increase the interest of employees in the work of the plant, with consequent increased length of service and contentment on the job. This naturally reduces the dreaded 'turnover,' and for this reason, if for no other, should appeal to foresighted employers. Those who have tried this part-time scheme for their apprentices commonly testify that in plants where four to eight

¹⁴ Federal Board for Vocational Education, Bulletin No. 19, *Part-time, Trade and Industrial Education*, p. 14.

hours a week are devoted to schooling, there has been no decrease in production due to this loss of time."

"The present world crisis," says the bulletin, "is bringing us to a conscious realization that as a people we are insufficiently trained. The employer in every phase of industry and in every part of the country is now in need of men, especially men with more skill and self-reliance than the average. This need makes him particularly well disposed to listen to any proposition which will make it possible for him to secure more and better service. His coöperation is assured if he can convince himself that the part-time scheme is right."

Port Sunlight—education for profitable as well as happy leisure.—As will be set forth in greater detail in a later chapter, the most difficult group for which to devise a course of training is that of the unskilled workers and especially the considerable number of these who exhibit no aptitude for acquiring skill. Specialization in industry has brought the automatic machine (the "iron man," it has been called) and along with it the necessity of finding the automatic human being who will feed it. Education should lift him out of his (often her) automatism, but the fact is that automatic workers will still be needed. Moreover, a fair percentage cannot be lifted into the sphere of thinking or to the point of caring to become skilled workmen. For these the theory exists that continuation education or any other must be for profitable as well as happy leisure, and that the worker, young or old, may counteract the hours of monotony not with mere gratification of the senses, but with, to put it philosophically, an appreciation of the good, the beautiful, and the true, in so far as these in their elementary mani-

festations may be comprehended by this type of worker. So education veers back to culture—culture as counteractant to toil. The Lever Brothers in their famous soap works at Port Sunlight, England, conduct a successful continuation school on a considerable scale. While trade and technical education is given to those capable of receiving it, to the unskilled are given music and physical training. Girl junior clerks are compelled to take morris-dancing along with their shorthand, while senior clerks receive instruction in hygiene, needlework, morris-dancing, English literature and science in addition to bookkeeping and shorthand. The company believes that it receives a full return for such teaching even though the employees may later leave for employment with some other company.

Making up the deficiencies of the regular school.—Continuation schools exist where the aim is to do in four hours a week what the full-time school has not been able to do in twenty-five hours a week for seven or eight years or more. If pupils in a continuation class are found reading *Julius Cæsar* and painting pussy-willows because the elementary school was unsuccessful in teaching these accomplishments, and these tasks are done understandingly, perhaps it is worth while. Consideration, however, must be given to numerous factors in the lives of young workers, and the weight of evidence and argument is altogether against the conception of the continuation school as a last stand where an attempt is made to supply the shortcomings of previous educational effort.

Specific aims and means are necessary to carry out general aims.—From the foregoing can be gathered that there is a fairly general agreement upon the desirability

of continuation schools for training in citizenship, for vocational guidance, and, to some extent, for training in industry. With some difference of emphasis there are the same aims. But, as might be expected, the similarity of purpose is accompanied by a marked diversity of opinion as to the specific method of attaining the end desired. In the administration of the continuation school, after the aims and purposes have been determined, and the underlying principles have been ascertained, it becomes necessary to give attention to general method and then to special method. The aims and purposes may be formulated by the public in consultation with educational leaders, and, once they are agreed upon, schools of education and psychology will determine underlying principles, in agreement with the findings of experience to be obtained from accepted leaders and administrators and supervisors within the continuation schools themselves. While we may look to leaders in education to suggest the possible methods, this work must not be left to them, nor can their findings be accepted as final until they have been supplied with that mass of facts and experiences which will give data for scientific study and deductions and have based their theories on this experience. The continuation school movement is now gathering these data, and, for the present at least, continuation school programs and methodology must come from within the school where teachers and supervisors are in direct contact with the young workers and the conditions and the immediate problems. First-hand experience is now the best guide, and any proposed methods and principles must be checked within the school to establish their validity. Gradually this experience will

furnish a ground on which to try out the proposed theories of advisers from university, college, or state departments of education concerning such problems as job analyses, individual and group instruction, production programs, and vocational counseling programs. It is because this is a new field that daily contact with the peculiar essentials of the continuation school presents problems ever increasing in number and complexity until the leaders within are thrilled with the enthusiasm of pioneers blazing new trails.

4. Why Must We Have Continuation Schools?

Dewey on "occupation."—Before leaving the matter of the functioning of the continuation school through the study and practice of occupations Dr. Dewey may be quoted.¹⁵ Although these words were written without reference to continuation schools, the application is obvious:

"Occupation is a concrete term for continuity. It includes the development of artistic capacity of any kind, of special scientific ability, of effective citizenship, as well as professional and business occupations, to say nothing of mechanical labor or engagement in gainful pursuits."

"An occupation is the only thing which balances the distinctive capacity of an individual with his social service. *To find out what one is fitted to do and to secure an opportunity to do it is the key to happiness.* Nothing is more tragic than failure to discover one's true business in life, or to find that one has drifted or been forced by circumstances into an uncongenial calling. A right occu-

¹⁵ John Dewey, *Education and Democracy*, pp. 359, 360.

pation means simply that the aptitudes of a person are in adequate play, working with the minimum of friction and the maximum of satisfaction. With reference to other members of a community, this adequacy of action signifies, of course, that they are getting the best service the person can render. . . .

"An occupation is a continuous activity having a purpose. Education *through* occupations consequently combines within itself more of the factors conducive to learning than does any other method. It calls for instincts and habits into play; it is a foe to passive receptivity. It has an end in view; results are to be accomplished. Hence it appeals to thought; it demands that an idea of an end be steadily maintained, so that activity cannot be either routine or capricious. Since the movement of activity must be progressive, leading from one stage to another, observation and ingenuity are required at each stage to overcome obstacles and to discover and readapt means of execution. In short, an occupation, pursued under conditions where the realization of the activity rather than merely the external products is the aim, fulfils the requirements which were laid down earlier in connection with the discussion of aims, interest, and thinking.

"A calling is also of necessity an organizing principle for information and ideas; for knowledge and intellectual growth. It provides an axis which runs through an immense diversity of detail; it causes different experiences, facts, items of information to fall into order with one another. . . .

"The only adequate training *for* occupations is training *through* occupations. The principle that the educative

process is its own end, and that the only sufficient preparation for later responsibilities comes by making the most of immediately present life, applies in full force to the vocational phases of education."

The school's message to the child.—As with any lesson plan, it is important that we think of the school in terms of the child's reaction. Were the school organization articulate, it would address the child thus:

"Once upon a time your parents would have trained you in the work you would have to do in the world, or you would have been apprenticed to a master with whom you would have lived and worked. All through the perilous years between fourteen and eighteen you would have been guided and counseled as to your future place in life. But now, with immense factories, stores, and offices, where you are a mere cog in the wheel of industry, where you are hired by chance and fired by circumstance, where you perform one little operation well or ill and only the exceptional child rises above mediocrity, where the blind-alley job is much more common than the broad highway to success, we, the state, as represented in the school, shall become your counselor, guide, and friend, to the end that no matter what your riches or your poverty, you will retain contact with the best that is in life.

"We intend to help you so that twenty or thirty years hence you will not say, 'If I had known when I was a boy what I know now, I would have a different kind of job,' or, 'If I had only had the right kind of training when I was young, I would be much more advanced in my work than I am now.'

"And we are going to do that in the most practical and interesting way. We are going to give you a chance to

try your hand at as many different kinds of work as possible, knowing that sooner or later you will find your bent. When you have found it, we are going to get you a job in that line of work, and then we are going to give you supplementary training along that line so that your advance will be steady and rapid. You will find that when you have availed yourself of all this opportunity you will not only have bettered yourself, but will have become more valuable to the community, a better citizen."

The real answer to the question, Why must we have continuation schools? can be found only in the school itself, in talks with individual pupils, in a look at their clothes and into their eyes, in a sensing of the experience which has been theirs. Any continuation school teacher can instance case after case illustrative of the need of guidance, occupational, mental, physical, social. Boys who are engaged in illicit trades and are on the highroad to crime and ruin, boys of brilliance and character who are being crushed under the weight of economic slavery, boys of power and endurance wasting their days and years in the blind-alley job, boys reared amid vileness and obscenity who will poison the society in which they live—these boys need the continuation school and its guiding, corrective influences. Many of these young people are to find in the continuation school, if at all, the desirability and the possibilities of better living.

Girls whose homes are vile and filthy and sometimes evil, girls who are struggling to rise above their dull and enervating jobs in factories, but who do not know the method, girls whose characters are far removed from that of ideal womanhood—these girls need the intelligent and

sympathetic counseling of a teacher who typifies that womanhood to which we would point our girls.

For such as these, as well as for the others, are the continuation schools.

CHAPTER II

SOME HISTORICAL FACTS AND CONCLUSIONS

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Hostile attacks upon continuation schools vary little in character. Workers themselves desire continued education. Most employers want continued education; some make sacrifices for it. Successful establishment depends upon the inspiration of individuals.

I. Introduction

Significance of the history of continuation schools.—While the detailed history of the part-time education of juvenile and adult workers would throw considerable light upon the disputed aims and accomplishments of continuation schools, there is no attempt here to do more than to record those facts which bear directly upon the administration of schools for junior workers at the present time. An attempt is made to point out the underlying motives and the environmental conditions which gave rise to the continuation school in any particular locality. These will, in a degree, explain present practices, and thus probably help point the way to further progress.

Definition of terms.—A discussion of continuation schools necessitates a careful definition of terms in order that false conclusions may not be drawn from supposedly similar premises. The argument, for instance, that the existence of continuation schools in England as early as the eighteenth century indicated the backwardness of the United States would of course be fallacious, as the English use the term "continuation school" for any type of education offered subsequent to discharge from the full-time day school. In that sense a continuation school may be conducted privately or by the state, may be for young workers or for adults, may hold its sessions during the school day, in the evening, or on Saturdays and Sundays, and may be either voluntary or compulsory. There-

fore, any promotion of continuation education on the basis of an analogy drawn from English experience would be legitimate only after the elements not common to both situations had been carefully abstracted.

As the purpose of this volume is to deal only with problems arising in connection with the compulsory part-time school for junior workers, reference to other types of part-time schools will be made only when these schools have some relation to the compulsory continuation schools. Consequently several terms should be rigidly defined:

a. A continuation school is a *day* school. The time given to instruction must be taken from the regular working day of the pupil, which usually extends from 8 A. M. to 5 P. M., but may in exceptional instances cover the period from 7 A. M. to 7 P. M.

b. A continuation school is a *part-time* school. The pupil is engaged for part of the week in regular remunerative work. The time spent in school will usually be no fewer than four hours per week and no greater than eight, for a period varying between thirty-six and fifty weeks a year. If the time spent in school rises to one half of the working week, the school becomes *coöperative*. In this respect the distinction is purely arbitrary. The only difference between a continuation and a coöperative school is administrative. Since only half the time of the worker is spent on the job, two students must be paired so that they may alternate every week or every two weeks, one being at work while the other is at school.

c. A continuation school is a *compulsory* school. The pupils must attend. The state is the compelling agent. This may be an arbitrary definition. The nature of the

work, however, is certain to differ markedly, as the group taught consists of young people eager to obtain all the education the state will offer, or as it consists of all workers, among whom are many who come unwillingly and for that reason are all the more in need of instruction.

d. A continuation school is for *young workers* from the time they leave the full-time school until they reach the age when the state believes compulsory education may be safely discontinued. The usual ages are 16 or 18. Whether the state will ever raise the upper limit to 21 is uncertain, but from present indications such action is a long way off. This age specification is also arbitrary, but it seems advisable to restrict the term continuation to young workers.

“Further education.”—The English use the term “further education,” which is useful in that it comprehends all types of schools for workers—whether the schools be compulsory or voluntary, day or evening, for young or for old. It carries with it the idea of not having had enough, of Oliver Twist’s supplication, “I want some more.” It is well for those interested in continuation schools (and for those opposed to them) to remember that this type of education is a natural, logical expression of a need for further education, and that the type of education defined as a day, compulsory, part-time school for young workers emerges as the only practical and efficient vehicle for such an expression. In the golden age of industrial education, when apprenticeship was in flower, further education was a matter of course for the boy who could have himself bound out to a master worker. Despite its few glaring faults, apprenticeship provided an excellent education, and ever since the close

of that brief period in which it flourished sporadic but cumulative efforts have been made to snatch from a new and changing social and industrial world some of the old surviving advantages. For the younger pupil under the age of sixteen the continuation school will probably be largely prevocational in character. It will give try-out courses in which the pupil may find himself. But for the pupil over sixteen the school will be to a large extent an organized apprentice school. In its broadest aspects this type of apprentice instruction can be formulated to meet the industrial conditions under which we live.

2. European Development

The old apprenticeship.—What benefits did the apprentice derive from his indenture? In the first place it gave him a “steady job” with a stated means of advancement. It placed his feet definitely on the road to the position of master worker. It gave him prevocational experience, and it trained him for an occupation. It provided for a close supervision of his progress by a means that we are fond of calling “follow-up.” It provided that the master be responsible for the young worker’s knowledge of the three R’s. Since the boy lived with the master and was made one of the family, it provided for a training in manners and conventions, for discipline in good habits, for the inculcation of sound morals, and for the teaching of religion. In so far as the civic life of the master was commendable, apprenticeship provided training in patriotism. What are these purposes but the objectives of the continuation school? The present type of industrial organization precludes the binding out of the individual boy to the individual master worker.

Moreover, the new status of women makes it imperative that the girl also be given opportunity, something which the old order did not provide for nor even contemplate. Through the years intervening between the breakdown of the apprentice system and the advent of the continuation school, workers have groped toward some means of assuring themselves through education a finer appreciation of life. On the other hand, enlightened employers have striven for something which would retain the merits of apprentice training, and at the same time eliminate those features that make it impractical under the present industrial organization.

The English development.—Such has been the development in England. The children's Sunday-schools teaching Bible reading were followed as early as 1780 by adult Sunday-schools established for the same purpose. The original procedure was to devote the first hour to writing, after which the teacher and the scholars would read a chapter aloud, and then use the remainder of the time for silent Scripture reading, spelling, and questioning by the teacher. This exemplifies in language teaching that phase of continuation school work in which are emphasized minimum standards in morals, and in the fundamental arts of English and numbers. Later, in 1823, were organized for working-men the mechanics' institutes. In these were taught the branches of science which were of practical application to the students' trades. The present-day continuation school designates this subject matter as "related information"; and where the so-called academic work is organized around "jobs," it constitutes practically all the curriculum not concerned with manual operations. In 1843 the first of the work-

ing-men's colleges was established to place within range of the working-man studies of more difficult content than those taught in the mechanics' institutes. In the continuation school, where the ability of the pupil warrants, this content becomes technical knowledge. No record is found showing that up to this time attention had been given to civic values in education. This became an objective of the Working-men Coöperators in 1844. They had in mind primarily the formation of character and opinions favorable to coöperative production. This objective was to be attained by teaching the history, theory, and principles of the movement, together with economics and industrial and constitutional history in so far as they have bearing upon coöperation. Secondly, these workers were interested in training men and women to take part in industrial and social reforms and in civic life generally. Civics is stressed in the continuation school of to-day. In fact, with some administrators good citizenship holds the most important place among the various aims.

Better social relations through provision for comradeship, for united prayer, and for study of the Bible was the aim of the Young Men's Christian Associations, thus rounding out the usual curriculum of the continuation schools of the present time. The night schools and evening classes received government recognition in 1851, when pecuniary aid was extended. These schools were followed by the development of university extension courses and of free public libraries, and by the stimulation of reading through the National Home Reading Union. All these are phases of further education, and fulfil a need springing from the desires of the people; as a

historical argument they are unanswerable. If they represent the volunteer activities of representative people whose ideals and aspirations are analogous to our own, there is strong reason to believe that our workers need these things, too. If, through lack of money or ability to coöperate, these workers are unable to organize a continuation system of their own, the state must do it for them. If, in addition, there has grown up the tradition that education is a state function, it is doubly certain that continuation education comes within the province of the state.

In England this further education has found its fullest expression in the Fisher Act, which makes mandatory upon local communities the establishment of continuation schools for boys and girls between 14 and 18 years of age. All the more unfortunate is it that when the cost of carrying out the program became apparent, the provisions were not regarded.

The German development.—Consider, in contrast, the Munich schools, which represent the culmination in a gradual development in Germany, the details of which are not important enough to set down. They are obligatory for apprentices from 14 to 18 and voluntary for journeymen and master workmen. The apprentice must receive instruction in the industry and also in general subjects. For at least eight hours a week he is taught German literature, commercial correspondence, commercial arithmetic and bookkeeping, knowledge of tools and machinery, as well as drawing and practical work in his own particular trade, religion and gymnastic exercises. Those who cannot be accommodated in any of the trade continuation schools are gathered in a general

training school where they are taught German literature, commercial correspondence, arithmetic, gymnastics, civics, drawing, and manual work. For girls a domestic or a commercial course is prescribed. The trade-guilds are asked to coöperate. The emphasis here is very different from that in Denmark, for instance, where the cultural subjects are given prior consideration. Yet the same virtues are attributed to both types of schools. It is probable that the types of pupils, the conditions of living, the traditions of the community, the character of the previous training, and countless other factors determine the most desirable type of continuation education.

After a thoroughgoing consideration of these factors and of the experience of other communities, it becomes the duty of local educators to decide what shall be the ratio of practical to cultural education. While the most successful continuation education in this country will probably be that of which the core is the future occupation of the child, it is also essential that the first consideration in making the curriculum be the peculiar need of the individual child. Continuation school teaching must be case study work. That is to say, in theory a different course of study must be prepared for each child, while in practice as many courses will be devised as there are homogeneous groups of pupils. It is easy enough to conceive of a young worker whose vocational aspirations and future happiness demand the teaching of the traditional subjects. Such boy or girl, upon entrance to the continuation school, should have mapped out a course of study which will satisfy these longings, the school being so organized as to be able to provide such a course.

This is the answer to the question as to whether the continuation school should teach the practical or the cultural subjects. The formulation of the answer and the assurance with which it can be given are dependent to a considerable degree upon a knowledge of what has happened in other places at other times. Sometimes the history of education is underrated as an instrument of thought.

Present status in foreign countries.—In the foregoing have been briefly pointed out some of the significant facts in the history of the continuation school movement. A knowledge of the present status of these schools in foreign countries will serve as a background against which to measure progress in the United States. The following is a skeleton account drawn chiefly from the survey of the Federal Board for Vocational Education.¹

a. *England.* The Fisher Act, passed in 1918, provides in general for attendance upon a day continuation school between the ages of 14 and 18. The time required is 320 hours a year. The full enforcement of the provisions of the act is not mandatory within seven years from the date of enactment, the enforcement beginning with the 14 to 16 year old group and concluding with the 16 to 18 year old group. Exemption for education is granted, of course, for attendance upon full-time schools, or upon passing the matriculation examination of a university of the United Kingdom or an examination equivalent thereto. In general, the act has the approval of the English people and is considered excellent legislation. In only a few localities, however, has it been put into effect, as financial conditions following upon the war have

¹ Bulletin No. 73, *Part-time Schools*.

not warranted such a step. Even in these communities there has since been retrenchment, so that there are now no compulsory schools in England.

b. *Scotland*. While Scotland does not come under the Fisher Act, a very similar act has been passed. "Employers are coöperating not only by helping to finance this particular form of education and by forming advisory boards and councils composed of representative men and women, but also by discriminating in favor of pupils attending part-time schools by employing their help rather than that of other boys and girls not attending. In other countries discrimination against each pupil has not been uncommon."

c. *Sweden*. In Sweden attendance upon continuation schools is made compulsory between the ages of 13 and 18 years for a number of hours ranging from a minimum of 360 to a maximum of 540, which may be completed in two or three years, as decided upon by the school district. Although a child may not be forced to enter a continuation school immediately upon leaving the elementary school, it is believed that continuation school work should follow elementary school work at once. The act became fully operative in 1924.

d. *Germany*. The constitution of the German Republic requires that every child attend school for eight years, usually between the ages of 6 and 14; and then, if he does not enter a higher school, he must attend upon compulsory part-time instruction from the fourteenth to the seventeenth year.

e. *Switzerland*. In each canton compulsory part-time education is found.

f. *Norway and Denmark.* There are now under consideration bills providing part-time compulsory schools.

3. Development in the United States

Two lines of development—industrial and educational-social.—In the United States the continuation school has arisen, first, from a demand on the part of employers for skilled mechanics and foremen (in contradistinction to superintendents, engineers, and technical experts, who have been trained in plenty by the technical schools), and for a reduction of the labor turnover, and, second, from a demand on the part of social workers, labor leaders, progressive schoolmen, the vague “public,” for such school education as would make profitable, to children leaving the full-time school, the wasted years between 14 and 18. Because of these two motives, and in accordance with the prevailing sympathies and interests of administrators, either the vocational or the educational-social aspect has been emphasized. A blending of the two has given rise to such composite conceptions as have been set forth in the previous chapter. The attempts to adjust the child to the situations which he must meet in his occupation and in his home have resulted in general agreement as to the desirability of making the occupation the core of instruction and the center of coördinating activity.

Early attempts.—The earliest attempts to meet the conditions created by specialization in industry and the consequent breakdown of apprenticeship were made through private evening schools, where somewhat advanced technical knowledge might be obtained by adults.

Since the subjects taught were those related to their daily occupations, an opportunity was given the worker to take full advantage of the promotional possibilities in those callings. During the early fifties Cooper Union and Mechanics' Institute in New York City, Franklin Union and Spring Garden Institute of Philadelphia, the Ohio Mechanics' Institute of Cincinnati, and the Mechanics' Institute of Richmond, Va., were opened with such a purpose. During the period of expansion following the Civil War many engineering schools and institutes of technology were founded, privately at first. The large land grants made to the states for the support of instruction in agriculture and mechanical arts through the Morrill Act in 1862 resulted in the inclusion of engineering departments in most of the Western States and colleges.

Manual training.—Among those whose keen interest has been in vocational education, the distinction between the cultural aims of manual training and the strictly vocational aims of industrial and commercial education has been made. The support for manual training, however, has been derived in part from a feeling that such training was at least laying a foundation for skill on the job and would lead to greater efficiency in industry. Introduced into the elementary schools between 1887 and 1890, some form of manual training is now given in nearly all the grades, but rather as a mode of expression and an interpretation of life and not as a means of developing skill in production.

Trade schools.—The first definite attempt to train workers for the trades was made in 1881 through the establishment of the New York Trade School. During

the first twenty years after that date only two important schools giving training in the mechanical trades were added. They were the Williamson Free School of Mechanical Trades near Philadelphia and the Baron de Hirsch Trade School of New York. After 1901 trade schools were developed in various parts of the country, the first to enjoy public support being the Milwaukee School of Trades, which was taken over by the city in 1907.

The Massachusetts investigation.—The full-time trade school presented serious problems. Training for the skilled trades was in common practice restricted to the period above 16 years of age, requiring a considerable sacrifice of wages for those desiring such training. The acceptance of 14 year old pupils in trade schools has overcome the objection in part, but the opportunity to continue full-time education after 14 can never meet the needs of the boy who graduates from elementary school at that age and so strongly feels the urge to work that his education can be continued only as a supplementary and coördinated activity. The problem of the 14 to 16 year old child who leaves school without having completed the work of the elementary school loomed so large in the investigation of the Massachusetts Commission on Industrial and Technical Education that the consideration of it makes up the largest part of its report issued in 1906. While the commission did not specifically recommend the establishment of part-time day schools, but at the time seemed altogether interested in the full-time industrial school, it revealed and made explicit the conditions which give rise to the need of such schools for the group studied. These conditions not only persist but

exist in probably greater degree than at the time the report was written. The subject was studied under the following heads:

"a. What the children of 14 and 15 are doing throughout the state.

"b. What the educational and economic value of these years has been to the child at work.

"c. What the educational and economic value of these years might be.

"d. What the economic status of these children is, and how necessary is the income of the child."

Of all the children in the State between 14 and 16 years of age, 25,000 were found to be working or idle, and of these only about one sixth had graduated from the grammar-schools, one half had not passed beyond the seventh grade, and one quarter had had less than six years of schooling. The industrial world had claimed three quarters of the graduates of the grammar grades with no further preparation, except the small minority who had had a year or two of high-school work. Thirty-three per cent of the children who had begun work between 14 and 16 were employed in unskilled industries, 65 per cent in low-grade industries, and a little less than 2 per cent in high-grade industries.

As a result of its extensive investigation, the commission found that neither power nor advantage was gained by entering the industry at an early age, that the child who did enter closed behind him the door to progress to a fair living wage; that the child associated himself with the most undesirable population; that the work was passing gradually to poorer and poorer classes of foreign-

ers; that industrial education or education of any kind would mean that the children would not enter the industry. Subsequent investigations have all led to the same conclusions. Boys desiring to enter industrial and technical callings are prevented from doing so until they are 16 or 17 years of age by the established practices of employers, who feel that those under these ages are not an asset to industry. In later years, through a desire to protect the child from overwork, exposure to dangerous machinery, and exploitation, the law has prohibited his employment in many industries until these ages are reached. Thus legal restrictions have confirmed and strengthened the tradition. Children have thus been forced into juvenile occupations offering little opportunity for advancement.

The commission found a strong tendency to take fewer and fewer children, to demand experienced help, to refuse all apprentices and younger help, and to approve the teaching of the principles of the trades. It stated:

"The development of policy in the industrial world and the experience of educators shows that the productive power of the child before fourteen is negative, and that it has not the power to handle anything but the simplest processes in the simplest and smallest way; that from fourteen to sixteen he is of productive power only for the large processes of manufacture, or for errand work; by teaching, may gain the principles of industrial work, which may be put into practice after sixteen: that therefore, the training between fourteen and sixteen be in the simpler practical line only; that between fourteen and sixteen it should combine the practical training in

specific industries with academic work as applied to the industrial problems, to develop intelligence and responsibility."

The commission had in mind particularly the day industrial school, but for a large majority of this group of children the part-time or continuation school must be established as a finding school. It is planned primarily to give the young boy or girl desiring to enter industry a series of contacts with industrial activities including the use of the fundamental tools used in the occupations. This training must be supplemented by well-organized courses in vocational guidance, study of industries, and the like. For children 16 years of age or over one of the primary functions of the part-time school is to place boys in jobs affording them an opportunity for organized training. After the boy has entered a calling of the occupation, the character of the work in the continuation school becomes trade extension in scope, with the major emphasis placed upon the related work in drawing, mathematics, science, and other subjects essential to the welfare of the boy in this calling. Industry itself must in many instances provide the organized shop training, while the school gives the related work. Later schools will point out the differences involved in the conditions governing in commercial occupations as compared with industrial occupations.

The investigation of the New York State Military Commission made in 1919 confirmed the general conclusions of the Massachusetts commission, as may be seen from these brief statements:

Of all boys investigated, 5 per cent left school at the end of the fourth grade, 10 per cent had left at the end

of the fifth, 25 per cent at the sixth, 50 per cent at the seventh, 75 per cent at the eighth, 90 per cent at the ninth, 96 per cent at the tenth, 98 per cent at the eleventh, and 100 per cent at the twelfth.

About 30 per cent left school before 15.

About 38 per cent left school between 15 and 16.

About 26 per cent left school between 16 and 17.

Over 40 per cent spent less than four and one half months on their last job.

About 60 per cent spent less than seven and one half months on their last job.

Modern apprentice schools.—While the old apprenticeship waned and has now almost disappeared, in its place, through the necessity created by the lack of skilled mechanics, numerous schools have been established to give especially to boys expecting to become machinists such related technical instruction as would enable them to become proficient in their calling. The related work has usually consisted of trade drawing, practical mathematics, shop science and theory, and sometimes English, commercial geography, or civics. While such apprenticeship has been developed primarily to train skilled mechanics, the broader, more far-reaching purposes (in so far as they have not been served by technical schools) have been:

a. To develop all-round skill to guide the large industrial army of machine operatives and to instruct them in various processes.

b. To develop ability to design and build the complicated machinery which specialization of manufacture has necessitated, and to keep it in good order and repair.

c. To develop the leadership on which the expanding industries have to depend for their very existence.

With one or two exceptions (for instance, R. Hoe & Co., 1872), the principal schools of this type were established between 1900 and 1910. A survey made in 1913 indicated that there were 53 schools in the United States. The most important were those of the New York Central Lines, 10 schools, 1906; Santa Fé Railroad System, 22 schools, 1907; General Electric Co., West Lynn, 1906; Yale & Towne Manufacturing Co., Stamford, Conn., 1908; Lakeside Press, Chicago, 1908; Solvay Process Co., Syracuse, 1909; School of Printing of North Union, Boston, 1906; R. Hoe & Co., New York, 1872; Drawing School of American Steel & Wire Co., Worcester, Mass., 1892; Fore River Shipbuilding Co., Quincy, Mass., 1907; Ludlow Textile School, Ludlow, Mass., 1907.

In so far as the continuation school attempts to teach the 16 to 18 year old boy who has been well placed in industry, it will in many instances give related knowledge supplementary to practical training received on the outside job. The continuation school will do for the 99 per cent what a few progressive employers are doing for the 1 per cent. Coming from within industry itself, apprentice schools have been a powerful argument for spreading the training over a greater number of boys.

Other types of service training.—During the years of growth of the new apprenticeship other types of service training have developed out of the needs of business and industry. Telephone companies have trained their operators in special schools. The department stores have given vocational training through buyers' conferences, bulletins, lectures, and continuation classes. They have

concerned themselves with the physical education of their employees on the ground that "anything that will improve the physical condition of these women will add to their selling ability." A large insurance company has given a correspondence course for agents, a course in stenography for beginners, a course in mathematics for applicants for actuarial positions, and systematic instruction in gymnastics and recreational activities for men and women. A clothing house has given courses in hygiene and safety and in English, to reduce illiteracy among the large number of foreigners it employs. Another clothing house, doing a large mail-order business, has its whole clerical force of 800 at school, the new ones to learn their jobs, the experienced ones to perfect themselves in their jobs, and the old ones to learn a new job with a view to promotion. Municipalities send their policemen and firemen to school both before and after appointment.

Public part-time education.—By 1910 several projects for the part-time education of workers under public auspices had developed. For several years engineering students in the University of Cincinnati had been studying on the half-time or coöperative plan when in 1909 a school was opened for machinist apprentices who spent four hours a week studying the related technical subjects with some general instruction. One hour was given to blue-print reading, free-hand and mechanical drawing, one hour to practical mathematics, one hour to shop science and theory, and one hour to reading, English, spelling, commercial geography, and civics. The last hour took the form of stereopticon talks, readings from industrial history, biography and geography, and discussions of civics and labor questions.

The Beverly (Mass.) Industrial School worked out with the United States Shoe Machinery Company a half-time coöperative plan whereby the boys both in school and factory were under a regular machinist instructor employed by the school. In Fitchburg a similar plan was evolved. In Chicago agreements with carpenters, machinists, plumbers, and sheet-metal workers enabled carpenters to attend every day for three months in the year while the others attended a half-day a week all year.

These gropings toward feasible public systems of part-time education led inevitably to state, and later to national, legislation establishing public compulsory day part-time schools. In the stimulation of the public to the point where its responsibilities might be realized, the National Society for Vocational Education (originally the National Association for the Promotion of Industrial Education) was a prominent factor. In view of the subsequent events, it is interesting to note the opinion of Dr. Charles W. Eliot, then President of Harvard University, as expressed at the first meeting of the National Society:

"Industrial education ought to mean trade schools, and nothing but trade schools; that is, schools directed primarily and expressly to the preparation of young men and women for trades. They should be either full-time schools or partial time schools, that is, all such schools should be capable of being used by boys and girls who devote their whole time to the schools, just as they do in an ordinary high school, or by pupils who, being already at work, are allowed by their employers to give from six to twelve hours a week to the trade schools.

" . . . These trade schools will require that children

be kept under observation of the community up to the seventeenth or eighteenth year, and be absolutely required to attend a continuation school, for part time at least, if attending no other.

“ . . . We must conform to nature in regard to the training of our children; we must guide each child into that path in life in which he can be most successful and happy; for none of us can be happy in any life work unless we have the power to achieve something in that work.

“ ‘Democracy,’ says Pasteur, ‘is that order in the state which permits each individual to put forth his utmost effort.’ ”

a. *Wisconsin*. The honor of being the first State to establish an organized system of compulsory continuation schools belongs to Wisconsin. In 1909 the legislature created a special commission to investigate and report upon the educational needs of the State. After two years of study and investigation, during which it was led to appreciate the intimate association of industrial and educational needs, the commission laid before the legislature its plans, which were enacted into law in 1911. These included the provision for compulsory attendance upon continuation schools of all working-permit children. The law has since been amended to include all workers between 14 and 18. State Superintendent Cary had been urging the need of industrial education and had interested members of the legislature in the project. The conditions were ripe for the passing of the necessary legislation. The superintendent states that members of the legislature were interested in education, that one of them suggested the appointment of a commission to study the

needs of young people who dropped out of school between 14 and 16, and that when the bill was presented "it passed with remarkable ease."

b. *Massachusetts*. Both New York and Massachusetts enacted laws enabling communities to compel attendance upon continuation schools. The commission, whose work has been described, did not recommend compulsory attendance upon part-time schools. In many of the cities part-time classes were established by local boards, mostly in the evening, but attendance remained entirely voluntary. The evening schools perhaps served the purpose intended. They offered further educational opportunity to ambitious boys and girls who, obliged to work during the day, were willing to devote their evenings to self-improvement. They could do nothing for the great masses of young workers who lacked motive or physical strength to undertake the double burden. Wisconsin had established continuation schools and was requiring the attendance of children working under employment certificates, but in Massachusetts action of so radical character was not to be expected. The situation, clearly demanding compulsion in the higher interests of her working children, was met with conservatism and the regard for community rights which have ever distinguished this commonwealth. In 1913 the legislature authorized towns and cities maintaining continuation schools to require the attendance of all between 14 and 16 to whom working papers had been issued and who were regularly employed. Attendance was to be for not less than four hours a week, and on a working day between eight in the morning and six in the afternoon. It was required that the time spent in school be included as a part of the forty-

eight hours during which the child might be legally employed. To encourage the establishment of such schools the State undertook to pay the community a sum equal to one half the cost of maintenance.

Boston was the only city to invoke the compulsory provisions of this law. Several attempts were made to require attendance under general statute, but hostile influences successfully resisted the movement until the legislative session of 1919, when continuation schools were made compulsory throughout the State and attendance required of all children between 14 and 16 employed on certificate.

c. *Pennsylvania.* Pennsylvania was the second State to enact a state-wide compulsory law. This was in 1915, when as part of the Cox Child Labor Law all children between 14 and 16 were compelled to attend eight hours a week as part of a maximum of fifty-one hours. While the usual prophecies were made as to the effect upon industry and upon child employment, the enforcement of the law proved only beneficial to both. The schools are firmly established and are looked upon with considerable favor.

d. *New York.* The enactment and the results of legislation in New York parallel in a measure those of Massachusetts. In 1913 the Wilmot Law, authorizing a community to enforce attendance upon day continuation schools when established, was enacted; but, as in Massachusetts, only the largest city in the State took advantage of the opportunity. This law was the result of unpopularity with both pupils and school authorities of the law passed in 1910 compelling all boys between 14 and 16 to attend an evening school for at least six

hours each week for sixteen weeks during the year. Little effort was made to enforce attendance except in a few localities, and even in New York City this effort met with indifferent success. In 1915, of 22,000 who should have been in evening schools, less than 20 per cent were registered, and the average attendance was but 9 per cent. The Wilmot Law enabled a board of education to compel the attendance of workers between 14 and 16 when they had not completed the elementary school course. The period of such compulsion was for not less than four hours nor more than eight and for thirty-six weeks in the year. In 1918 New York City established under this authority at Hester and Chrystie Streets in lower Manhattan what later became the East Side Continuation School. Through pressure brought to bear by advocates of vocational education, social welfare organizations, and labor, and finally through the influence of a special message to the legislature by Governor Alfred E. Smith, an act was passed requiring all communities of 5000 or more population to establish continuation schools and authorizing the compulsion of attendance of all boys and girls under 18 years of age who had not completed a four-year high school course. Such attendance must be for not less than four hours and not more than eight hours a week. While an attempt has been made on three successive occasions to repeal the law or to modify it, each time the support of employers and the public has been so strong that the repealing bill has not been considered out of committee and has there been unanimously voted down.

The National Society for Vocational Education.—

Organized in 1906, the National Society for the Promotion of Industrial Education, later re-named the National Society for Vocational Education, has ever since that date aimed to obtain from the public a recognition of the need for vocational education in this country. Its membership has included leaders in business, commerce, manufacture, labor, education, and public life. Through persistent stimulation the society has kept vocational needs before the public. Annual meetings, committee reports, periodic bulletins, and judicious publicity culminated in the enactment by Congress of the Smith-Hughes Bill in 1917. Through this law all types of vocational education below college grade are supported, and it was as a result of this support that much of the state legislation was enacted subsequent to this date. The Federal Government appropriates a maximum of \$1,000,000 a year for the preparation of "teachers, supervisors, and directors of agricultural subjects," while a maximum of \$3,000,000 is to be appropriated in 1926 "for the purpose of coöperating with the states in paying the salaries of teachers of trade, home economics, and industrial subjects." The continuation school necessarily shares in the allotment through the provision "that at least one third of the sum appropriated to any state for the salaries of teachers of trade, home economics, and industrial subjects shall, if expended, be applied to part-time schools or classes for workers over fourteen years of age who have entered upon employment, and such subjects in part-time school or class may mean any subject given to enlarge the civic or vocational intelligence of such workers over fourteen and less than eighteen years of age;

that such part-time schools or classes shall provide for not less than one hundred forty-four hours of classroom instruction per year."

4. Some Conclusions

Cultural and practical education must be judiciously blended.—The English development suggests some interesting speculations regarding the relative values of cultural and practical education in continuation schools and the character of subject-matter to be taught in them. While the argument does not give rise to the same impassioned debate as when college classics are under discussion, there are nevertheless strong partizans for each contention. A historical consideration seems to indicate that successful continuation work always provides for a combination of the two, however they may vary in proportion. Often, unfortunately, the emphasis is the resultant of fortuitous circumstances from which finally some sort of philosophy evolves. Antitheses in this respect are the folk high schools of Denmark and the continuation schools of Munich. Despite the fact that the former are for young people beyond the usual continuation school age, they serve well to illustrate the theory. The students are usually between 18 and 25, the sons and daughters of farmers, cottars, artisans, civil servants, teachers, tradesmen, and merchants. They receive instruction more advanced than that given at other high schools—geometry, physics, the industrial life of Denmark, the Danish language, drawing, bookkeeping, singing, hygiene, Bible interpretation, history of the world, and history of the North. Some of the schools combine with this curriculum technical instruction, principally

in the building trades and agriculture. For many, however, the instruction is purely classical. The schools, which are privately owned, have had many difficulties and have suffered much ill-will and misrepresentation. According to their detractors, the schools are hotbeds of political agitation, and "the pupils' heads have been filled with nonsense." On the other hand it has been said that these schools have enabled the humble man to become a "partner in the best happiness in the world," and that they have contributed to progress in religious freedom and have created a wider and deeper interest in the government and the country. In fact, it was found in 1901 that no less than 30 per cent of the membership of the Danish Parliament had passed through the folk schools. Moreover, and this is the striking point, it is contended that the folk high schools have resulted in greater productiveness in industry, and that Denmark produces more and better butter because of the culture of its farmers. Who shall say?

The present obstacles have historical precedents.—The difficulties encountered by part-time education in the process of its establishment upon a firm basis are those common to reform and certainly characteristic of educational departures. The trials and tribulations of the part-time administrator, while in themselves irritating and discouraging, can be borne with considerable equanimity when seen in the light of the experience of those who have blazed the trail of educational progress in the past. Bishop Grundtvig, the founder of the Danish Folk Schools, was sued for libel and accused of heresy, although his great desire was to give culture to the Danish people. The schools he founded struggled for

their existence during a long period. Now it is said that Danish agriculture is organized on a system more thorough and scientific than can be found in any other European country, and that the folk high schools are credited with this remarkable achievement.

The Fisher Act, a notable accomplishment in educational legislation, is to a large extent nullified because the people lack the desire to supply the necessary funds to make it function. In the flush of enthusiasm based on a very real desire to raise education to standards that are conceived to be none too high, a people agrees to provide continued education to the eighteenth year, but when the time comes to pay for this needed advance the representatives of the same people regret their own well-considered actions and procrastinate. This is a situation to be deplored, but it arises in many a community. The population as a whole wishes to provide for its children, and as individual taxpayers the people are willing to pay the bill. The only consistent and ultimately effective counter-argument for the part-time administrator is first to "sell" the continuation school idea in larger measure to his fellow citizens and then to compel by public opinion the officials to provide the funds for its successful prosecution.

Even in Germany there has not been a steady and uninterrupted movement. The need for collective action that was felt in the early part of the nineteenth century, and which resulted in the establishment of continuation schools, was followed by a wave of individualism. The compulsory laws were withdrawn, and the school practically passed out. Later the ineffectiveness of non-coöperative action once more became apparent to the

people, compulsory laws were again enacted, and the continuation school has flourished ever since. Of the great value of this type of education there is no longer any question.

In both Milwaukee and Boston, where the oldest continuation schools in this country flourish, there has been opposition and controversy, but at the present time these schools are as firmly established as part of the educational systems as are the elementary schools. Persistent "salesmanship" and an effective demonstration of worth have combined to make these schools as inevitable in the civic organization as the police stations or hospitals.

It is easy to recall the struggles of other types of education for recognition as part of the public school system. The history of full-time trade education is recent enough to be impressed upon the memory of present educators. The opposition to establishing the kindergartens is familiar. How difficult it was for physical training to find its way into the curriculum! Reverses and set-backs are the common lot of all those movements which threaten to replace or in the slightest degree to modify traditional procedure, regardless of the field of activity.

Hostile attacks upon continuation schools vary little in character.—The arguments against the continuation school recur monotonously. Those who otherwise believe in education seem to find it difficult sometimes to understand how a pupil can learn anything in four or eight hours a week. The adequacy of the education is questioned on a priori grounds. The only answer is the proof of efficiency a posteriori. It is contended that the pupil in continuation school cannot get a job. Yet where continuation schools are established the pupils do have jobs.

It is held that the day continuation school is unnecessary in that the same value can be derived from attendance upon evening school, and yet the history of compulsory evening school attendance is that attendance of minors in the evening after long hours of day labor cannot be compelled and should not be compelled. Where this plan has been tried, notably in New York City, it has failed completely.

Some members of boards of education and boards of estimate have held that the cost is too great. Yet cost has always been a characteristic of education or of any other public service. The only pertinent question is, Do we need it? Or, Do we need it more than most other things? In the abstract, American ideals always indicate an affirmative answer. American idealism would seem then to call for prompt and full payment of the bill rendered for the perpetuation of American institutions by providing for young workers an education which will make them efficient to the greatest possible degree.

Workers themselves desire continuation education.—Wherever workers have made themselves articulate they have demanded continued education. If economic circumstances have cut them off from the advantages of the full-time school, they have attempted to make good in some manner the loss they have thus sustained. The continuation school has grown out of these attempts. As has been noted before, the English schools have developed from the increasingly insistent efforts of the worker. From Sunday-schools to university extension teaching, spontaneous demand for a better understanding of industry and of life as a whole has been evident. The continuation school is a product of this spirit. It is not

a contrivance clapped upon the worker by a paternalistic government. It is of the people, by the people, and for the people.

In Germany the continuation schools depend almost entirely for their success upon the coöperation of the guilds. In Denmark the folk schools flourish upon the voluntary attendance of the workers. In the United States the continuation school movement has won the whole-souled support of organized labor, the compulsory laws being in part the result of the demands of labor-unions. Wherever difficulty arises because of the young worker's lack of desire to attend during the day, it is possible to trace it to the selfish, grasping attitude of the employer. The worker wants the education, and organizations of workers want the education; but individual employers sometimes discriminate against those who must attend. Then the pressure of competition between employers begins to operate, and the employee suffers in not being allowed time for continuation school or in being denied pay for the period of attendance upon such school. Moving in a free medium, the worker wants the education provided by the continuation school

Most employers want continued education; some make sacrifices for it.—In general it may be said that most employers want their workers to have more schooling. They want them to be better workers and better people. However, some employers are quite willing that the worker himself should make all the sacrifice of time and energy. "The evening," some reason, "is just the time for education." Even Robert Owen found it necessary to work the child for twelve or fourteen hours a day before he could send him to school. However, as knowl-

edge increases and the dangers incident upon overworking growing children become better known many employers have become very willing to sacrifice part of their time to the good of the individual. Even the selfish employer falls into line, for he appreciates that the betterment of the individual inevitably results in greater efficiency in the worker. The continuation school of the Lever Brothers' soap works at Port Sunlight, England, is notable. The company bears the entire expense, and the work is done during working hours. This has in itself been an evolution, for at first the time was contributed by the worker. Wherever apprentice schools have existed they have resulted from a desire on the part of the employer to train his workers. These schools have been numerous. They have resulted from the expression of a need. They are an indication of the fact that, properly organized for effective training in industry and for education in citizenship, the continuation school will receive the hearty support of the majority of employers.

Successful establishment depends upon the inspiration of individuals.—Successful education of any type cannot be imposed upon the economic organization of a country, state, or community by mere enactment. The initial impulse and the outward form may be given, but the spirit must be infused by faith, intelligence, and forcefulness. The breath of life was breathed into the Danish folk schools by Bishop Grundtvig. The Munich continuation schools flourished only after they had been stimulated by Kerschensteiner. The leadership of Evans made the Boston Continuation School. The magnetic personality of Cooley made the Milwaukee Continuation School. Inspiring leadership spells success.

CHAPTER III

THE CHARACTERISTICS OF PART-TIME PUPILS

1. Reasons for Leaving Full-time School and Their Effect upon Continuation School.

Type of pupil a primary consideration.

Reason for leaving school indicative of requirements of curriculum.

Children leave school for complex reasons.

The continuation school must embody new aims.

An "opportunity" or "last chance" school, not a "continuation" of the full-time school.

2. Occupational Status of Pupils and Its Effect upon Continuation School

The ideals of the school must be the ideals of occupational life.

Coördination vital.

Vocational counsel and placement as an antidote to "hoboism."

The high-school group.

Wages vary considerably within the group.

3. The Effect of Physical and Mental Conditions upon Continuation School Organization

Health defects result in forced movements.

Continuation school must examine, diagnose, and advise.

Low mentality of non-graduate continuation school groups.

High mentality of high school group.

Adolescence exhibits varied traits.

The young worker a characteristic social product.

1. Reasons for Leaving Full-time School and Their Effect Upon Continuation School

Type of pupil a primary consideration.—Whatever theory may underlie the continuation school as to profitable vocational guidance, adequate vocational training,

or wholesome instruction in the duties of citizenship, both the theory and the institution will fail to function unless the type of pupil brought into the school is thoroughly understood. In the full-time school the importance of child study has received more and more recognition during the past generation, and in its psychological and pedagogical aspects much has been done to make the school a more vital factor in the life of the child. It remains for the continuation school to consider the peculiar reactions involved in the child's sudden, premature, and violent separation from his traditional, protected, and sometimes pampered life in the full-time school, to plunge into what he calls "life," tempered incidentally by a weekly contact with school teachers and educational apparatus. Such consideration should issue in pedagogical and administrative procedure designed to make practical the aims of the continuation school. It is the aim of this chapter to indicate the character of the often crude and unfinished product entering the continuation school, and the peculiar treatment necessary to prepare it for vocational and civic efficiency.

Reason for leaving school indicative of requirements of curriculum.—In beginning to work with continuation school pupils the point of departure is the reason for the pupil's leaving the full-time school. Every investigation has confirmed the outstanding fact that children leave school because they do not like it, and they do not like school because the work done there has not captured their interest either for its immediate pleasurable qualities or for its potential occupational possibilities.¹ The

¹ Meyer Bloomfield, *Readings in Vocational Guidance*, pp. 123, 239, 404. Also Helen Sumner Woodbury, *The Working Children of Boston*,

reasons given din monotonously and ominously in the ears of the school teacher: "tired of school," "disliked school life," "disliked study," "hated arithmetic" (or geography, or history, or English), "could not learn," "school work too hard," "not promoted," "had trouble with teacher," "preferred work to school." The theme is relieved only at long intervals by an honest and sorrowful "had to work." Studies for the purpose of ascertaining these reasons have usually been made among definite age groups not attending any type of school. To check up the results for non-graduates of elementary school now attending continuation school an intimate, personal, and thoroughly friendly survey of 151 boys chosen at random was made in the East Side Continuation School.² The comments of the investigator illuminate this fundamental problem. It should be carefully noted that these conclusions do not apply with equal force to graduates of elementary school or to those who leave high school. The longer the pupil survives in full-time school the greater the likelihood that failure to continue is really caused by economic pressure at home.

Children leave school for complex reasons.—"It became evident, shortly after the inquiry among the boys was begun, that the figures compiled could not be used in the manner of a mathematical index, for the problem is solved only when the human element is given due weight. To label any one boy with a particular reason in the vast majority of cases distorts the facts. On the other hand, it is fair to state that in most instances a

U. S. Department of Labor, Children's Bureau, Publication No. 89, p. 115.

² MS. by Julius Laderburg.

major reason was found. Yet this alone would not have caused or permitted the boy's leaving school. It is just to state that a combination of at least two reasons, one blending into the other, took the boy out of school.

"The impression became too marked to avoid the conclusion that a serious indictment was being drawn against the school system. With its seeming appeal to all, the knowledge presented to the children did not become part of their equipment because of a lack of interest in the work as presented, or in the subject matter, or in the affability or capacity of the teacher, or in the attractions of the school building.

"The table given below indicates that the leading reasons for which boys leave school are dislike of school and the need of financial assistance at home. However, with few exceptions, where 'financial assistance' was given as the important reason for leaving school it was ascertained that because of some minor dislike of school the boy did not regret the necessity. When economic need was advanced as the reason the boy was asked, 'Who suggested that you leave school to help the family?' and the reply invariably came, 'I did.' When further pressed with, 'Did n't your parents object?' the boy would reply with a knowing smile, 'Well, I was n't getting along anyway and my parents could use the money.' The 'not getting along anyway' simply expressed a veiled dislike of school for some more or less important reason. In fact, many who gave financial distress as the cause could have remained at school had they wished to do so.

"It is interesting to note the conversation of a few of the more analytic minds. One boy said: 'My teacher

[day school] taught in an evening school near my home. I liked him. He was a good teacher. I thought he could teach the same stuff to me at night. What was the use of wasting my good time learning drawing, music and other subjects I did n't like and could never use? I could work during the day, make money, and learn the important things at night. Besides, you can get a diploma at night school quicker than at day school. But they fooled me. I thought if I'd pass at night school, I would n't have to come to this place. But this would n't be such a bad place if they did n't dock you or if they had decent shops.³ Anyway, I'm better off now.'

"Another boy put it this way: 'I was old enough to go to work. I don't want to be a doctor or a lawyer. So what's the use of going to school? The quicker I got to work the sooner I'd get ahead. Most bosses never went to college. You learn more at work than at school. You got to learn or else get out.'

"And still another: 'My brother and me worked last vacation. I hated to go back and give up the dough. He only had another class to go. I had three. There were a lot of dubs working in the shop who didn't graduate and they were making the dough. I begged to stay and won out. Huh! my brother graduated and I'm making more than he is. Of course, I can't be a messenger boy; he can because he graduated. What good is that job, anyway? A regular trade for mine.'

"From conversations of this kind, which are typical

³ This was in the early days of the school before employers were generally disposed to pay pupils for time spent in school and before the present well-equipped shops had been installed.

of the entire investigation, it is evident that the figures listed below are a fair indication of the reasons why boys leave school:

1. Dislike of school	54
2. Need of financial assistance at home	32
3. Ashamed to continue because of size	7
4. Ashamed to continue because of age	5
5. Ashamed to continue because of non-promotion	6
6. Disgusted because of non-promotion	4
7. Refused to continue because of being put back	4
8. Poor marks in graduating class	3
9. Feeling of being disliked by teacher	5
10. Followed in footsteps of friends or persuaded by friends who were working	6
11. Worked during vacation and acquired the desire for money	8
12. Could earn money during day and go to school at night	2
13. Couldn't progress because they were foreigners	3
14. Heckled because they were foreigners	1
15. Father needed a trusted employee to help with work	5
16. Desire to learn a trade	5
17. Orphan forced by guardian to earn money	1

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The continuation school must embody new aims.—
The outstanding fact, then, is that in many cases the pupil who has just left the full-time school to go to work comes to continuation school only because he must and with a resentment ranging in intensity from passive in-

difference to violent opposition. The patent inference is that the continuation school, if it is to succeed, must be a very different sort of place from that which the pupil has learned to call school. Moreover, regardless of the emotional state of the pupil, an equally manifest inference is that if the pupil has been a failure in twenty-five weekly hours of school, he is not likely to experience a sudden regeneration in the four, or six, or eight hours taken from his daily toil and given to continuation school. His education cannot be "continued" in the sense that he is quickly to be taught to spell the words which for seven or eight years have completely baffled him, or that he is to become friends with the mathematical puzzles which he has bungled all his life. Rather must he be convinced that the continuation school has something else in mind for him and that, however alien and bizarre this ability may have seemed in the minds of his former school teachers, whatever talent he possesses will be tenderly fostered and given a chance to grow and flourish. There must be a difference in organization, method, course of study, discipline, and tone which will mark the continuation school as something apart from all that has come within his previous experience.

For the young worker who has left school because of "needed financial assistance at home" the continuation school is a boon, for it guides him into the job where his talents are best rewarded. As long as the young person feels that the school, whatever its type or pretensions, is not a vital factor in his life, that school is a failure. And it is necessarily true, whether unfortunately so or not, that this feeling is measured in terms of reward for services rendered. If the pupil was ashamed to continue

because of size or of age, he should find in the continuation school a congenial atmosphere, for here the pupils are not only of much the same stature but they are necessarily all within a narrow age-limit by virtue of the conditions causing them to attend at all. Wherever the widest range of ages is gathered, as in those states in which 14 to 18 year old children must attend, the flexible classification makes it possible to group by physiological or chronological age if either of these methods seems desirable. The same principle holds true of those who were "ashamed" or "disgusted because of non-promotion," or "because of being put back" or "because of poor marks in graduating class." The continuation school must discard the old grades and minimum standards, give the pupil a new start, use his failures as guides to some other kind of work, and emphasize only growth in ability to produce and in desire to embrace ideals. It is notable that the California law explicitly prohibits the setting up of minimum standards of accomplishment, the implication very rightly being that in the continuation school there is no such thing as failure except possibly on the part of the school itself. This comes when the pupil is not guided into his place in the occupational field or is not adequately trained for the place. In other words, the continuation school discards the theory of the survival of the fittest through circumstantial selection which has heretofore been responsible for separating out from the millions who enter the 1A grade of the elementary school the meager percentage of intellectuals who graduate from college. The administrative technique of grading, promotion, and transfer, which will be treated in another chapter, becomes a fascinating adaptation of machinery

to purpose rather than of purpose to machinery, as has hitherto obtained to a considerable degree in the traditional schooling.

The "feeling of being disliked by the teacher" is a very real and poignant emotion when the victim must live with the fancied or real oppressor five hours a day. The prayer for delivery from the enemy should be answered in the continuation school. Like other more extensive wars the cause often lies in ignorance of mass psychology; the numbers are too large for personal contact. Classes should be small enough for individual instruction and for individual vocational counseling and guidance. Each pupil is a case for intensive study by the teacher. Fifteen pupils, and surely no more than twenty, can establish personal relations with the teacher who visits the employer and the home in the spirit of help, and he will hardly be considered in worse light than that of a friendly enemy. Coördination, guided and systematic, would alone assure the success of the continuation school. Dislike by the teacher will be unreal when the teacher is a person and a personality who understands, and through understanding sympathizes with the adolescent boy and girl. The selection of any other type of teacher by those administering the schools will offset whatever good might otherwise accrue to the movement. The girl, capable or dull, who literally loves her continuation school teacher as a woman and a beautiful character, is being educated beyond all that pedagogical science can do for her. And this is what is actually happening in the case of thousands of girls doomed to live in sordid surroundings who have left full-time school.

An "opportunity" or "last chance" school, not a "con-

tinuation" of the full-time school.—The pupils who "couldn't progress" or were "heckled because they were foreigners" find the continuation school congenial, for, far from being heckled, they are encouraged by being placed in classes for instruction in the English language, in which classes their fellow pupils are in the same state of budding Americanism as they themselves. They enjoy their work, for they realize greater possibilities in occupations with a mastery of the language. The continuation school is conceived in no narrow sense as a school with a fixed curriculum under the influence of which every entrant is to be brought, but rather as an "opportunity" or "last chance" school to which the pupil comes and says, "Here I am; I want to be this; please give me that"; and lo! the school brings it forth and gives it to him. The pupil's needs determine both the curriculum and the method of treatment.

For the pupil who "desires to learn a trade" or who "followed in the footsteps of friends who were working," the continuation school is all that his heart could desire, for while the school cannot hope, in the time allotted, to teach a complete trade, it can find the aptitudes and capacities and can give the rudiments necessary for their operation. What is more important than all, this type of school relates the teaching to the work of the boy or girl on the job.

In conclusion, the reason why the boy or girl leaves the full-time school is the reason why he or she should attend continuation school. It is the reason why the continuation school should be what it was established to be, not a replica, annex, or shadow of anything that has been or is, but a distinct, intelligent, and militant factor

in saving from failure the boy and the girl who leave the full-time school unprepared to enter the business life into which circumstances of some kind or other have forced them. When, however, the pupil has left school, he assumes an occupational status which in turn becomes a vital factor in determining the treatment of the pupil and the organization of the school.

2. Occupational Status of Pupils and Its Effect upon Continuation School

The ideals of the school must be the ideals of occupational life.—The next most obvious characteristic of the continuation school pupil as distinguished from the full-time pupil is his status as worker. All his school life he has had dinned into his ears the fact that “some day” he would go out into the world and through honesty, probity, and industry would succeed in reaching whatever goal he might set for himself. Now he is *in* the world and is busily engaged in finding, holding, or mastering a job—or ought to be. Transcending in insistence even the awakening sex life is his problem of a job and a career. He is a wage-earner and often an indispensable unit in the economic life of his family. Here is presented the rare opportunity about which modern schoolmasters have done much theorizing with little realization. In the continuation school lies the opportunity to make the school function immediately in the life of the child. The course of study, the methods of teaching, the mode of disciplining must center around the job, the efficiency of the worker, and the concomitant characteristics of the good citizen.

The course of study must be built upon the basis of

job analysis, the subjects of instruction being the occupational processes themselves, together with the related arithmetic, English, hygiene, and the civic virtues that accompany occupational efficiency. With proper equipment, administration, and method, the school with such a curriculum becomes society itself; it is society. The teacher must demand a definite, reasonable, and creditable product such as the employer demands upon pain of discharge, and the tactics of discipline must stress the fact that the pupil in school is subject to the same sanctions as he is in the rôle of worker on the job. This procedure in itself places the continuation school upon a plane different from that of the full-time school, for here the ordinary social virtues of politeness, obedience, loyalty, personal appearance find their reward in profitable employment, and a fall from grace is followed by swift and unmistakable retribution. The boy who digs a knife into the furniture, or is insolent to his teacher, or refuses to perform the allotted task, must see his defection in the light of an employment problem. He must realize that any of these offenses would bar him from a remunerative job.

Coördination vital.—These considerations involve a close tying-up with the job. Discipline involves a visit of the teacher to the employer as well as a demand for the coöperation of the parent. The object is curative, but it is also preventive. By soliciting the interest of the employer from the very start and keeping him informed of the pupil's progress, the teacher enlists a powerful ally in promoting the boy's welfare. As has been stated above this type of coördination presumes teachers who are keen to the realities of business, who are diplomatic

and tactful, and who have grown out of the attitude of the proverbial pedagogue of yesterday.

Unfortunately, and it is to be hoped temporarily, some continuation school pupils are handicapped by the discrimination of employers, who understand the continuation school only to the extent that it takes the worker from his job for a certain number of hours a week. As a result of this short-sightedness such employers deduct from the pupil's pay for time lost while at school; they block his chances of promotion, or they discharge him on some pretext or other when it becomes apparent that the law must be obeyed. Coupled with the dislike of school which was developed in the pupil through the traditional course of study, the lack of interest in the pupil's betterment results in a resentment that is more than likely to assume a commanding place in the consciousness of the pupil. The course of study, the administrative procedure, the tone of the school must be such that resentment will disappear in the flood of good will arising from the opportunities newly found in continuation school.

For the younger group of pupils between 14 and 16, who for the most part are holding juvenile jobs not requiring skill, the employer's coöperation must be enlisted by bringing to his attention the advantages derived from a better selection of employees, and from a more serious attitude on the part of the workers. He must be made to realize that good vocational guidance, given primarily for the benefit of the worker, will ultimately rebound to the employer's advantage. For the older group, beyond the sixteenth year, increased skill, with greater productive ability and accompanying earning capacity must convince the employer that time in continuation

school is well spent. Liaison with the employer through visits and reports must keep him apprised of the manner in which his business is profited, while a well-organized employment bureau must be ready at any time to place the pupil whose short-sighted employer discharges him because of continuation school attendance.

The employer who discharges or refuses to hire the continuation school pupil does so from ignorance more often than from cupidity. It is no mere theorizing that the idea can be "sold" to most employers even when they are at first antagonistic. Teachers accomplish every day what often seems an impossible task. Pupils threatened with discharge are retained, others already discharged are reemployed, and still others who have been docked for the time lost from work are paid full wages. The winning argument is that the school is giving the boy or girl attitudes, skills, or knowledges, which can only be used to produce more for the employer. However, it is only as this argument can be supported by concrete accomplishment that the continuation school can expect to find and to continue to find favor in the eyes of the employer. The young, unskilled office-worker can be taught in four hours a week considerable office practice that will be clearly reflected in his daily tasks. The young machinist's helper can be taught trade drawing, related mathematics, and science, such as will assure a more rapid advancement than would otherwise be possible. Even the unskilled messenger can be taught the amenities of business life so that a marked improvement will be apparent. The justification for the continuation school, however, goes far beyond training in this narrow sense.

Vocational counsel and placement as an antidote to

“hoboism.” — Normally, regardless of continuation school, many boys and girls flit from job to job. In technical parlance they are job “hoboes.” Just what is the ultimate effect of this migratory habit is a matter of more or less dispute, some ascribing it to a lack of stability while others see in it a more or less unconscious desire for new experiences, all of which have an educational value. The truth probably is that those who change their jobs more than three times a year are the “hoboes,” while those who change them no oftener than twice a year are the self-educators. The indisputable fact, however, is that the reasons for making these changes are fortuitous and often whimsical, and also that there is sore need of intelligent counsel. The problem of supplying such counsel and of establishing the machinery for making it effective constitutes in the continuation school an essential phase of organization which will be discussed under Vocational Guidance and Placement.

While one of the aims of the continuation school is to guide the young worker into the right job, no such guidance can be effected before the pupil registers in the school; and even were it possible for either the full-time or the continuation school to guide toward occupations in the early stages of the pupil's career, the job which the child could actually find would always be affected by the character of the industries in the particular community, by the disposition of the employers to hire juvenile labor, and by the highly casual manner in which young people go about the important business of getting a start in the industrial world. Therefore, in any one continuation school definite occupational groups will have been established regardless of the operation of the

school itself, while the character of these groups will necessarily affect the organization and the course of study. A complete, detailed analysis of a typical school population is given in the chapter on Organization and is further considered under Course of Study, but at this point it is pertinent to note several general characteristics.

The outstanding fact is that approximately 50 per cent of the boys who leave elementary school before graduating are in altogether unskilled jobs or are out of work. That is to say, they are doing work requiring no more intelligence or skill than that possessed by a high-grade moron (usually running errands), or they are doing nothing except continually seeking employment, or, what is more to be deplored, some are not anxious to seek or get a job. This is a highly significant state of affairs which will be elaborated in discussing vocational guidance. To assume that every child has a job in which there is a well-marked path to success, that the pupil is potentially equipped to tread this path, and that he has a desire to do so, is contrary to fact. Vocational guidance, course of study, class-room management and discipline, teacher training, and school morale are all affected by the significant fact that 20 of those 50 per cent of the pupils are altogether in the woods as regards their future occupational and social lives, while the other 30 per cent are so uncertain of the trail that they are likely to lose it at any moment. These pupils do not go along joyously, eager to come out into the open spaces and fight the battle of life, but are all too willing to sit in the path and receive the doles of passers-by. With this group vocational guidance and training are often an extremely difficult and discouraging business, and, to change the

figure of speech, the teacher's job is like that of the doctor who attempts to save the life of the would-be suicide who persists in the desire to die. Not only must the teacher supply the technical knowledge of occupations and diagnose aptitudes and abilities, but he must arouse or infuse the will-to-do. Thousands of years of heredity plus fifteen years of environment as against four hours a week of an educational experiment present awful odds.

Another 7 per cent of this non-graduate group between 15 and 17 are "helpers." This may mean that they exercise considerable skill or that they exercise none at all. It may mean that they are clearly on the road to advancement along the line in which they are engaged or that they are in a blind alley. The remaining 43 per cent are scattered among the various types of service, manufacturing, commercial, and personal, where the problem of the continuation school is training for promotion or redistribution among the industries. But redistribution is even more important as a first step than training, for by this means the pupil who obtained his job in an entirely haphazard manner is placed in work in which there is for him a definite line of promotion. A job and not *the* job has been his goal since leaving the full-time school. The odds are entirely in favor of his having been misplaced occupationally. Even if the continuation school could do nothing more than get him started on the right trail, it would justify its existence. It really can do much more, however.

The high school group.—The elementary school graduate presents practically the same problems except for usually higher general intelligence and greater desire to learn. If he wishes to enter employment immediately

after graduation, the situation is complicated by his being permitted to leave school at an earlier age, 14 usually. Legal restrictions, traditional practice, lack of physical development, all tend to keep young boys and girls out of skilled employment. They are forced into what have come to be known as juvenile occupations which do not afford opportunities either for becoming acquainted with the possibilities of advancement in the same or other lines of work or for acquiring knowledge or skill. So the graduates suffer along with the non-graduates. They present the same vocational guidance problems, but show a considerably greater desire to lend themselves to the ministrations of the school. The percentages noted in these paragraphs reflect, of course, a local situation. The proportions will vary with the community. In the prosperous small town, with few suffering from poverty, the non-graduate group may be negligible. Even the stupid and the lazy are dragged part of the way through high school. If the tendencies are recognized, the proportions may be determined.

For the girls the problem is much simpler. The more unlikely it is that the girl will advance in her job, the more likely it is that in a short time she will be a homemaker. For better, for worse, she can be trained in that more or less chosen profession. Practical experience indicates that sympathetic teaching of the subject captures the interest of the most phlegmatic and unambitious. The problem is further simplified by the fact that in a continuation school the largest group of girls often consists of those employed in one trade. For example, in the East Side Continuation School there are many operators on clothing, and half as many again hand-workers

on various kinds of garments, including hats. These industries are in some measure carried over into the home. Nearly one third of the girls are unemployed either through choice or necessity. As two thirds of all the girls want to be dressmakers, milliners, machine operators, or home-makers, the problem reduces itself to teaching the subjects connected with home-making, specializing in the trade aspect for those who want or need it. Vocational guidance and training for this group of girls, among whom few have high aspirations or abilities, are easily provided in the continuation school.

Of girls who have graduated from elementary schools and perhaps have completed the ninth or tenth year, commercial work is the predominant choice, yet even here the ultimate goal is marriage. Usually considerable home-making instruction will have been received in the elementary grades. Whether more home-making or more commercial work should be taken first in continuation school, or whether both should be taken concurrently, remains for administrative decision in any particular case. The prime consideration should be the probable destiny of the girl. The immediate problem must be solved by an intimate study of the local situation.

Wages vary considerably within the group.—Absolute figures on wages have little value unless considered in connection with the general industrial situation and the corresponding wages of adults. However, in a group in which the age and educational limits are narrow, the questions of *range* and *variability* are important. In other words, if among pupils having presumably much the same equipment, there is considerable difference in earning power the continuation school must take cog-

nizance of the fact. In a study of 200 boys between 15 and 17 years of age,⁴ it was found that the range of wages for first jobs which had been concluded was from \$6 to \$30; 34 boys received less than \$12; 88 boys from \$12 to \$15; 21 boys from \$16 to \$30. Among boys who were still working on their first jobs the range was \$11 to \$20. In all jobs that were concluded 50 per cent of the pupils earned a weekly wage of from \$12 to \$17 a week. In the "present" jobs of all boys interviewed 18 per cent of the boys received less than \$12 a week, 59 per cent earned from \$12 to \$15 a week, 20 per cent from \$16 to \$20, 2 per cent from \$21 to \$25, and one boy earned \$40 a week. The average was about \$14. Among the girls the range was from \$8 to \$25 a week.

The wage-curve for any one pupil may reveal striking phenomena. One boy began work at \$12 a week. He found a better job that paid \$18. After working six months on this job he obtained one better at \$22. He left this one eight months later for a job that paid \$40. On the other hand, another youngster began with \$30 and six months later was "fired." Within two weeks he found a job at \$21. Five months later he was laid off because work was slack. He quickly found a position at \$18 but left it two days later because he did not like it. In two weeks he was on a job paying \$12, where he was working when interviewed.

In general the exceptionally high wages are earned by boys who have prematurely attained to the physique of the full-grown man. They deceive their employers as

⁴"A Study of Work, Wages, and Reasons for Changing Jobs of Two Hundred Boys in the East Side Continuation School," by Abraham Morris, 1921 (MS.).

to their age and thus obtain men's jobs, very often at driving trucks. Inevitably the wages never rise but usually fall as time goes on. In a greater or less degree this problem must be met in the case of every young worker. "How much are you willing to sacrifice in present wages for training which will result in subsequent higher wages?" In most instances the first answer is, "Nothing"; but through a comprehensive and sympathetic presentation of promotional possibilities the young workers are brought to a realization of the desirability of attaining skill. Most pupils want to "learn a trade." But they are also attracted by high wages where there is no chance to learn. The difficulty arises from the lure of the high initial wages offered in a few occupations. So the continuation school not only has to cope with the simple problem of starting the youth on a career, but in many cases it must assume the infinitely harder task of jarring him out of the industrial niche into which he has been flung through the present casual method of hiring juvenile help. Systematic guidance in the full-time school and placement when he leaves it would remedy this state of affairs to a great extent, but at present it is a far cry from any such desideratum.

3. The Effect of Physical and Mental Conditions upon Continuation School Organization

Health defects result in forced movements.—In dealing with continuation school pupils, or, for that matter, with pupils in any type of school, we are likely to think of them as wilful and stubborn, rather than as the unreasoning victims of circumstance. An analogy from the field of biological experimentation will illustrate the

point. Jacques Loeb has expounded the theory of forced movements and tropisms. Experimentally it may be demonstrated that the nerves controlling the various muscles are affected by electric currents, heat, light, pressure, in such manner that the conduct of the animal is determined physically and without regard to pleasurable or disagreeable sensations. Place a crayfish in electrically charged water with the positive pole at his head and the negative at his tail and he will be able to swim forward but not backward. Reverse the poles and he will move backward but not forward. In each case one set of muscles has been weakened. Place *Nereis*, a form of marine worm which burrows in sand, in a porcelain dish free from sand. Into the dish put glass tubes the diameter of which is that of the worms. After twenty-four hours every tube will be inhabited by a worm who will make it his permanent abode, even remaining in the tube when it is exposed to sunlight which quickly kills him. These are forced movements induced by the structure of the animal in response to external influences. Will and emotion play no part. The crayfish could not move toward the cathode if it would; the *Nereis* could not stay out of the tube even were he so to desire.

Philosophical and biological theories may clash, and the deductions applied to continuation school pupils arising from a consideration of crayfish and marine worms may be unwelcome, but the fact remains that workers often move forward or backward, come out into the open or bury themselves in recesses, despite whatever moral influences may be brought to bear. Consider the experiment of W. E. Garrey in proof of the muscle tension theory in heliotropism. "Asphalt black was applied to

the right eye of several specimens of *Proctacanthus*. In two or three days the paint had formed a brittle shell. During this time the blackened eye had become 'dark adapted.' When such a fly is exposed to light, it tilts and circles to the left. If now the brittle shell is cracked off the right eye by carefully pinching with fine forceps, the exposure of this very sensitive eye to light results in a reversal of the whole picture; the fly circles toward the side from which the black was removed. Although the illumination of the two eyes is of equal intensity, what was the normal eye now becomes relatively a darkened eye owing to its lesser sensitiveness. A differential effect results, probably due to a difference in the rate of photochemical change in the two eyes. This reversal of the muscle tonus and of forced motions may persist for an hour or two or even longer, until the two eyes become, as they ultimately do, of equal sensitiveness and the fly behaves like a normal animal." Such a condition produced by experiment occurs frequently through natural causes. Defective vision occurred forty-seven times in a group of 452 continuation school boys examined by Board of Health physicians. It is not too much to say that in each of these boys efficiency on his job was affected in some way by what the biologist calls "circus movements" but what the employer terms "chasing himself around in circles." The young worker should not be hampered by forced movements.

Continuation school must examine, diagnose, and advise.—There are other physical defects. In the same group there were 160 suffering from obstructed nasal breathing, 198 from defective teeth, 167 from enlarged tonsils, 34 from malnutrition, and 19 from pharyngitis.

Seven had flat feet and an equal number acne. There were six cases of boils and of pyorrhea. Four had spinal curvature and three otitis. There were single cases of suspected tuberculosis, rales, rheumatism, mitral stenosis, and tinea versicolor. Only 92 were pronounced normal, and this only as a result of a superficial examination. A thoroughgoing test would probably have revealed much more. The obvious fact is that the continuation school must take into consideration the physical condition of the pupil, which is determined by thorough examination, and then to render diagnosis, advice, and, if possible, treatment.

Low mentality of non-graduate continuation school groups.—The boys and the girls come to continuation school with definite mental equipment. For the non-graduate group between the ages of 15 and 17, in New York City, the level is established in so far as the National Intelligence Tests may be accepted as a criterion. The average physical age of these pupils is 16; the average mental age is 11 years and 3 months. In a sample grouping of 153 boys the intelligence quotients range from 38.8 to 114.1. The conclusions gathered from these figures are fully confirmed by the every-day experience of the continuation school teacher. Moreover, while the problem will bear extensive and intensive investigation, there does not seem to be much justification for the usual belief that perhaps the pupil with the low I. Q. has mechanical ability. If by mechanical ability is meant aptitude in handling tools requiring any degree of precision, there is little to build upon. These pupils, placed in the woodworking shop, may turn out creations compared with which the crooked man's crooked house was a

marvel of symmetry. Sometimes they do not get that far. They ruin the tools first. It may be that all the continuation school can do for the low-grade pupils is to help them gain or maintain strong, healthy bodies, find them the kind of unskilled, automatic jobs through which they may maintain themselves, and show them how to get as much satisfaction out of life as their limited sensibilities will permit. The experiment of Link is illuminating.⁵

High mentality of high school group.—In striking contrast to the low mentality of the non-graduate pupils who leave school as soon as the law allows is the high mentality of those who leave high school after a year or two of instruction. An application of the National Intelligence Tests to 688 such boys and girls at the East Side Continuation School⁶ reveals not only a very considerable range of ability (scores varying from 58 to 197) but also a group, approximating one half of those tested, who have splendid mentality (I. Q. 120 plus). So many differences of opinion exist as to the significance of results of intelligence tests that deductions as to specific vocations or courses of study seem unwise. However, one conclusion can be drawn without fear of contradiction, especially as it is confirmed by daily experience: whatever may be said of the non-graduate group, this high school group does not consist of boys and girls unable to learn and therefore scholastic failures, but of essentially capable children to whom the full-time high school curriculum has not been adapted or who have

⁵See p. 429 below.

⁶Conducted by Columbia University students under the direction of Dr. Rudolph Pintner.

been compelled to leave school because of economic stress at home. For them the function of continuation school is no different from what it is for duller pupils. Vocational guidance, preparatory and extension training have similar importance. The only difference is in the range and intensity of the instruction. The core of the curriculum is always vocational. For pupils of more than normal intelligence the school must provide means of exercise to the end that it will come to fruition in an appropriate position in life. This may involve an actual "continuation" of elementary school subjects, or the teaching of high school subjects, or even training to pass regents' examinations, if such examinations must be, especially when they are set up as prerequisites for practice of a profession. In any case the enormous disparity of intelligence with which pupils enter continuation school must be recognized, and provision must be made for it.

Adolescence exhibits varied traits.—In this consideration of part-time pupils there has been a studied avoidance of the term "adolescent." It covers a vast deal of ignorance. Like the "average child," *the* adolescent does not exist. There are adolescent children. And they exhibit traits. But how these traits differ! And since the continuation group is selected solely upon the basis of age and previous schooling the whole range of traits is covered. No general formula applied to adolescents will help the continuation school teacher or the administrator. He must be able to recognize in his pupils the whole range of human nature and to cope with any situation affecting or affected by men and women.

Consider what the writers say about adolescence. It is

a "period difficult to deal with." That is the truest and most pertinent of all statements. There is a "bewondering mingling of old instinctive tendencies, physiological processes and habits, with new impulses, ideals and habits. Never a time when feelings are so intense and varied." This is to say everything and nothing. A "tendency to self-sacrifice; sensations of touch, sound, color, and odor have a new emotional and sentimental significance; religious impulses grow; imagination very active in picturing future possibilities; thinking becomes less concrete, more concerned with general truths; a tendency to hasty generalizations; loyalty to companions, class, school, and country." These are all facts applicable to continuation school pupils, but they serve only to emphasize the complexity of the problem. For instance, if imagination *were* very active in picturing future possibilities, the work of the school would be vastly simplified; as a matter of fact, the great problem is to evoke some such imagination. Moreover, the pupils do not generalize, or rather (to avoid generalizing about a failure to generalize) many of them do not. These so-called characteristics of adolescence may be helpful to some, but they are just as likely to be confusing.

Other facts do stand out. There is a "change in size of body as a whole and in relative proportion of parts, and a remarkable increase in strength and great gain in rapidity and accuracy of movement, and also a corresponding period of imperfect coördination in which the individual is decidedly clumsy," resulting in a "need for motor activity and sport." Physical education and the training of the hand and eye are indicated. "Sex attraction grows; self-consciousness develops." Social hygiene

should be taught and some kind of training in right habits provided for. "Temporary memory of practical things, such as messages and errands, often decreases because the individual has at this time a broader and more intense subjective life." The effect, surely, as employers are aware, but the cause—perhaps.

The young worker a characteristic social product.—So the young worker comes, or is brought into, the continuation school, a product, like the rest of humanity, of heredity and of social and industrial environment. If society is consciously evolving, it must deal with that product as with others. There are the special conditions involved in a dissatisfaction with the traditional, full-time education. There is the growing consciousness on the part of society that the factory and the office do not provide adequate schooling for young people, and a deepening feeling that something must be done about it. Given the pupils with all their more or less striking characteristics, and given the opportunity, what are we school teachers and administrators going to do about it? Some of the possibilities are indicated above. The remaining chapters will deal with these systematically and in detail.

In the rigidity of system and the wealth of detail, original purpose is sometimes forgotten. Such forgetfulness, where the continuation school is concerned, can result only in failure. The continuation school is the "last chance school," upon which the State compels attendance, the "opportunity school" of the young worker; and organization, courses of study, administrative procedure must in every instance lend themselves to giving that last chance and that final opportunity.

CHAPTER IV

THE ORGANIZATION OF A CONTINUATION SCHOOL

1. Conditions Determining Organization.

The continuation school not hampered by tradition.
Organization as controlled by aim.
Organization as controlled by characteristics of pupils.

2. Basis for Classification of Pupils.

What is the homogeneous group?
The group must be small.
Types of classes dependent upon prevalent industries.
Class organization dependent upon an industrial and school survey.
The bearing of surveys upon organization.

3. Making a Practical Program.

The problem essentially one of grouping.
The teachers' apportionment of vocational and related work.
The assignment of men and women teachers.
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4. Attendance.

Good attendance primarily dependent upon good teaching.
Positive aids to good attendance.
 a. Coördination with the full-time school.
 b. Practical adjustments of the time of attending.
 c. Employment bureau.
 d. Insistence upon "make-up."
 e. Coördination with the employer and parent.
Negative aids to good attendance.
The responsibility for attendance.

I. Conditions Determining Organization

The continuation school not hampered by tradition.—Unlike the elementary or the high school the continuation school has behind it no long history to determine its curriculum and color its methods. In the full-time school every departure from reading, writing, and arithmetic has been treated as revolutionary and has been accompanied by corresponding disturbance. The pressure of yesterday's ten thousand years has been against it. Granting the validity of the aim of the continuation school, however, change itself becomes tradition, and it is only when there is no change that the tradition is violated. This is desirable, and it is for continuation school administrators to retain a sensitiveness to change and growth which will immediately translate itself into the organization and administration of the school. The school which intends and pretends to place boys and girls vocationally, and to guide them civically, physically, and morally, must reflect accurately the current changes in industrial and social life or it is doomed to early failure.

What are the factors determining the organization? Primarily they are two, the aim of the school and the characteristics of the pupil. In a previous chapter the function of the continuation school has been discussed and a definite aim has been suggested. The assumption of any other aim or function will render the succeeding discussion meaningless. In another chapter the special characteristics of the group of young workers have been examined, and some of the resulting implications have been stated. These will be considered more in detail. A third factor of organization is the community itself, espe-

cially its industrial complexion. If the primary purpose of the school is to train for citizenship by providing vocational and social guidance through preparation for occupational efficiency, and it is granted that such preparation must be to a large extent special and not generalized, there must be a thoroughgoing survey of the vocations for which it is worth while preparing. The subjects taught and the number of classes in each subject should be determined in the first instance by the opportunities offered in the various vocations, but this must be modified to some extent by the present positions of the pupils and by their ambitions and capabilities. These should be revealed in a school survey correlating the two factors. A fourth factor is the available supply of teachers with adequate training and experience. The organization may necessarily be considerably modified because of the ability or the inability of teachers to teach certain subjects. And finally, although an appropriate organization may be clearly indicated by these factors, it may still have to be further modified because of inadequate housing or deficiency in matters of equipment and supplies. Under these general headings may be grouped the several large problems and the numerous smaller problems arising in connection with the assignment of subjects and the formation of classes. These factors will all be controlled in part by the number of pupils in the school. The general principles of organization can be applied to a school of any size.

Organization as controlled by aim.—The prevocational and vocational aim must reflect itself in the classification of pupils and in the names of the classes. A pupil goes into a printing class or a machine shop class or a

home-making class, not into a 7A or an 8B or a sophomore class. His work centers in the vocation, and other things are incidental. There should be no reminiscences of elementary or high school nomenclature unless there is a distinct, reasonable, and strong desire on the part of the pupil to complete the full-time school work. Experience shows that this is the case with but a very small number of pupils. If there is necessity for grading, it should be grading within the vocation, the kind of grading that will indicate clearly progress in accomplishment. Preliminary to the preparation for a vocation may take place the detecting, recognizing, and removing of a handicap. If the pupil cannot speak the English language he must be taught that, since it is necessary to the successful pursuit of a vocation. Other activities must wait upon the pupil's ability to understand and manipulate the medium of instruction and social intercourse. If the pupil is mentally defective to the point of inability to profit by the ordinary methods of instruction, he should be grouped with those of his kind and given the benefit of whatever special instruction, tests, counsel, or supervision may be devised for his type.

Organization as controlled by characteristics of pupils.—Just as the aim of continuation education indicates the necessity for classification around definite vocations and special problems, so the characteristics of the pupils themselves lead to a similar procedure. Most of these pupils left the full-time school because they did not like it, and an analysis of their dislikes often resolves itself into the fact that they got nowhere, either in their own estimation or in that of the teacher. They were "too old for their classes," they "were n't promoted" or "were left

back," or they didn't like some particular subject or "couldn't do" the work. By tradition a standard for average achievement had been set up as a requisite for promotion, and a goodly portion were not able to achieve that average. The continuation school must assume no such thing as an average, but must determine what the pupil *can* do, and then develop his ability to do it. Except in the essentials of right conduct there can be no profitable attempt to strengthen the pupil in his weakest points. The large continuation school has the advantage of making it possible to divide and subdivide the student body until fairly homogeneous groups are obtained. In the small school the classes must be small enough for the teacher to give individual help, and to advise and follow up each pupil regardless of the diverse elements composing any one class. Specific methods of grading and promotion devised to meet the objects of the traditional process, and at the same time to utilize the psychological and pedagogical principles for securing other means of advancement, will be given in the chapter on Classification, Grading and Advancement.

2. Basis for Classification of Pupils

What is the homogeneous group?—The pupil who was "too old for his class" indicates the necessity for a classification by chronological age; if "too big for his class," a classification by physiological age; if "left back" or "put back," then a classification by mental age. Each of these classifications is not rigid but is modified by circumstance. Whereas many defective girls, provided they are not emotionally unstable, for instance, are happy, contented, and able to learn in home-making classes with

girls of higher mentality, the same type of boy is frequently out of place in a boys' vocational class. In the shop the defective boy injures tools, cuts himself, destroys material, or is in the way of everybody else. The important point to be considered by the administrator and by the teacher is that there should be maintained constantly a vigilant attitude ever ready to detect poor classification and to reclassify according to the need indicated not by register numbers or school convenience but by the individual himself. No group can be or need be homogeneous in every respect. The test is whether the class lends itself to advantageous teaching and whether the pupils in it feel themselves imbued with a common purpose. In general, the problem of classification will be best solved by grouping along vocational lines, and within these groupings by the progress of each pupil indicated by his accomplishment of a definite number of jobs of graded difficulty. Outside this general grouping there will be considerations demanded by the special problems of the oversized and the undersized, the mentally defective, the foreign, the especially brilliant, the unemployed, the newly entered, and the unruly.

The group must be small.—Figures and common experience indicate very clearly that many pupils leave school either because they do not like the teacher or because they are convinced that the teacher dislikes them. The facts often bear out the contention, not that the teacher necessarily holds personal antipathy nor that the pupil under any circumstances would harbor affection for the teacher, but the conditions are such that neither can give the other the consideration that would lead to understanding even in those cases where such adjustment could

be made. Large classes have cut short the educational career of many a child. Forty or fifty pupils must be handled en masse. There is little or no chance for individual guidance or counsel. While the intelligent, adaptable pupil will not need it, the dull, stolid one does; and it is good for both. It is only in small classes that the pupil can get individual help; in large groups he is lost in the crowd. The fact that pupils are being admitted and discharged from continuation school every day makes individual contact and instruction the more necessary. It is, in fact, indispensable. However good the method, the group must be small enough for its successful application. To prove that ten, or fifteen, or twenty, or twenty-five is the ideal number would be difficult, but experience indicates that any number over twenty adds difficulties to instruction to such extent that the intensity and vitality of the work is lost. In the shops it is impossible for one teacher to supervise projects at various stages of progress and at the same time to maintain shop discipline. In the academic classes the teacher may teach the mass and keep good discipline with thirty or thirty-five, but only by a tour de force and at an utter sacrifice of the purposes of the continuation school. In these cases no contact with the individual is possible, and certainly the burden of visiting employer and parent cannot be carried. It must be remembered that each teacher has different pupils each session, and, in some schools, he has two sessions daily. In these schools each teacher must keep records for ten classes per week. It makes considerable difference whether the class has 15 pupils or 30, since in one case the teacher has the records for 150 to care for, while in the other his total

weekly register would be 300. Therefore the time and energy required for records would be unbearable were the class registers to mount to a point anywhere near that of the average elementary school class. The problem is further complicated by the necessity of recording in some fashion the success or failure of each pupil on his job or lesson for the day.

Types of classes dependent upon prevalent industries.—Whatever may be the ambitions or the whims of the young worker as to his future occupation, there is no value to him or to the community in training him for that vocation if no opportunity will exist for him to exercise it when he has had the training, or if the workers in that particular industry are derived in some special manner. The business of the continuation school may be to stimulate a desire for training in a field where there is considerable opportunity but little initial desire on the part of the pupils; or, on the other hand, it may be just as much concerned in curbing the desire for training in a field where little opportunity exists when the training has been obtained. For instance, New York City is a center where the manufacture of garments ranks above the manufacture of any other one commodity. Yet few boys of their own volition choose garment design or cutting or tailoring as a vocation. In the knowledge that the industry demands the workers, such a class was established. The opportunities in the trade were made known to the boys, who when taking the course were placed with tailors wherever possible. The product of the work was trousers made by the boys for themselves in a few weeks at \$1.50 a pair. These were exhibited to other boys, with the result that the classes in pattern-

cutting and tailoring are flourishing and 90 per cent of the boys are engaged by individuals or firms handling garments.

On the other hand, *auto mécanique* seems to occupy for the mind of the average city boy the fascination formerly held by "bronco busting" or stage-coaches in Wild West adventure. In most instances the desire is not so much for a knowledge of the construction of an automobile or of the method of repair as for a desire to experience the thrill that comes from driving a car. The field is usually overcrowded. Auto mechanics, so called, are a drug on the market, even though the expert, as in other lines, is always in great demand. If boys were allowed to select the subject without check, and the full dramatic possibilities were exploited so as to draw into the vocation as many pupils as possible, there might be little else in a continuation school than classes in auto mechanics. Neither the individual nor the industry would be served. False hopes of future employment would be aroused, and a great many ill-prepared tinkers would disturb the peace of automobile owners.

Similarly great numbers of girls desiring commercial work have not the presence, manners, nor dress demanded in such a position. If it were necessary to mold these girls into efficient stenographers in order that business might be supplied with adequate help, everything should be done to accomplish this end, but the fact is that there are thousands of girls with similar aims who have so much better initial equipment that the others stand no chance in competing for available jobs. The business of the continuation school is not to teach stenography and typewriting to all who wish such instruction, but to

select those who are most likely to succeed in the proportion in which they are likely to obtain positions, and after selecting by a process of elimination of the less likely, to give them such counsel and possible training as will best fit them for the desired position. In other words, the industrial survey will determine the demand, while the try-out courses will regulate the number placed.

Class organization dependent upon an industrial and school survey.—The first step in establishing continuation schools is to determine the vocational possibilities in the community or adjacent communities. The size of the city, town, or district, the existing facilities for obtaining information, and the results of previous efforts to obtain it will point out the method to be used for gathering such facts most accurately, expeditiously, and economically. In a small rural community common knowledge may supply all the required data; in a one- or two-industry town a survey of those industries will suffice and may be made in a very brief time, but as the size of the community grows larger and the industries more varied the task becomes more and more complex, and can be met only through a thoroughgoing, systematic survey such as was conducted in Minneapolis,¹ in Richmond, Va.,² in Cleveland,³ or in New York City.⁴ Sources such as the United States Census or the statistics of the State Industrial Commission or the result of a

¹ *Vocational Education Survey of Minneapolis*, Bulletin No. 199, U. S. Bureau of Labor Statistics.

² *Vocational Education Survey of Richmond, Va.*, Bulletin No. 162, U. S. Bureau of Labor Statistics.

³ *Cleveland Education Survey*, The Survey Committee of the Cleveland Foundation, Cleveland, O.

⁴ *The Industrial Survey of New York City*, Report of Committee of Board of Estimate.

survey of an employers' or an employees' organization may be useful. The important principle is that subjects taught and courses of study laid out should not be based upon the scanty tradition built up in the field of education, but should in each instance be the result of current survey of the field. It must be remembered with regard to this phase that these results have only to do with the future possibility of employment and not necessarily with the ambitions of the pupil.

What has been said holds true in any community, yet it can only serve as a background against which to project the ambitions of the pupils in relation to their present jobs. In some cases neither the ambitions nor the jobs exist. The school has to deal with the drifting unemployed. In other cases the ambition is keen but the present job offers no hope of realizing it, or else the job has distinct promotional possibilities but the holder lacks either the desire or the power to avail himself of them. In other words, there are numerous combinations and permutations of desire, ability, and opportunity to be considered in forming classes. A brief consideration of one such survey will indicate some of the difficulties involved.

The group included 15 to 17 year old boys and girls who had not graduated from an elementary school. Of the 1656 boys considered, 800, or nearly 50 per cent, were in unskilled jobs such as running errands or were unemployed. Of this number 60 per cent were employed and 40 per cent unemployed. Another 7 per cent of the whole group were employed as helpers in various jobs where the skill depended upon the kind of job and the person being helped. The remaining 43 per cent were in jobs

requiring various degrees of skill from the feeding of an automatic machine to the skilled work of a compositor. Regardless of the type of work being done, the majority of the group came from commercial non-department-store occupations (clerical, selling, stock, shipping, shop-keeping). This group comprised 551 boys. Printing claimed 128. Following in order of the number of pupils engaged therein are garments, telegraph messengers, electrical trades, personal service (barber, bell-boy, bus-boy, elevator-boy, page, waiter), building trades, transportation metal trades, leather trades, department-stores, arts and crafts, auto mechanics, and commercial.

The pupils expressing their choice had had vocational advisement and partial try-out. Among the desired trades auto mechanics ranked first with 228 pupils. The electrical trades followed with 203, and then came salesmen, 194; printing, 165; garments, 92; shop-keeping, 85; machine shop, 77; chauffeur, 38; carpenter, 32; with the remainder scattering. It is to be noted that while auto mechanics was first choice for a future occupation, it was thirteenth among actual occupations, and the boys who wanted to learn it were found among all the other trades. The electrical trades were second choice but fifth in present occupations, and those who wanted it were also in many varied occupations. Those who wanted to be salesmen were for the most part in the large commercial non-department-store group, while 43 were already engaged at selling. On the basis of gross figures the printing group seemed to show the best balance, 165 wanting the trade and 128 being already employed in it in some capacity and therefore aware of conditions in the trade. However, 42 in the trade wanted something else, and 79

who wanted it were scattered among the other occupations, the largest number being in the commercial non-department-store group.

Fifty per cent of those wanting garment work were already in the trade, and most of those desiring shop-keeping were in closely related activities. Of the 77 desiring to be machinists 27 were in non-department-store clerical work, 14 were actually in machine shops, and the remainder scattering. Of the 38 who wanted to be chauffeurs 17 were unemployed. Incidentally, of the 6 boys who were already chauffeurs (and they could not have been legally licensed, as they were under age), not one wanted to continue in the work. One wanted to be an auto mechanic, one an electrician, a third a banker, two held out for salesmanship, and one was undecided. Of the 32 who wished to become carpenters only two were in the wood-working trades, the remainder being in various other occupations.

Of the 1438 girls who expressed an opinion, approximately one third were in factory work or machine operating, another third were unemployed, one sixth were in commercial work, and one sixth scattering (for example, crochet beading, dressmaking, millinery, embroidery, flower-making, corset-making, lamp-shade-making, sample-mounting, bookbinding, home-making). For future occupations 34 per cent chose to be dressmakers, 20 per cent commercial work, 12 per cent millinery, 10 per cent machine operating, 7 per cent home-making, 3 per cent personal service; 3 per cent were undecided, and the remainder exhibited various interests. Four pupils aimed to become nuns. It is to be noted that while more than one third were engaged in factory work

or in machine operating, practically none looked forward to factory work and only 10 per cent to machine operating. While the number in commercial work and the number desiring it are practically the same, they do not include identical pupils, for many of those in factory work aim to get into the office, while many of those in the office choose dressmaking. The meaning of choice on the part of the girls is of course considerably colored by the obvious fact that the large majority of these girls will become home-makers, although, unfortunately, economic circumstances will compel many home-makers to add to the family income by doing outside work.

These figures give a picture of a local situation. They are mentioned specifically merely as a basis for discussion. Whether the continuation school has a register of 20, or 100, or 5000, or 8000, a school survey should be made to determine the present and desired occupations of the pupils. In conjunction with the industrial survey of the community, this will afford a basis for organization. Where the numbers are small, such a survey will be little more than a consideration of the individual case histories. As the school grows larger, the tabulation of results will lead to definite groupings and eventually to more or less homogeneous classes.

The bearing of surveys upon organization.—In the first place, the need of guidance is strikingly indicated. Many are found in unskilled jobs, and others in jobs not leading to the place the worker wants to go, while others are in no jobs at all. The first aid in guidance is the organization of the school itself. Pupils will in the long run have a predilection for the trade or profession with which they have become acquainted in school. They

should learn what they have a predilection for if there is a field for the knowledge or skill when it has been learned or acquired. Therefore the organization of the school must be a nice adjustment of the desires of the pupils to their present and future occupations. If, for instance, the 228 pupils aspiring to become auto mechanics indicate eleven classes and the 92 future garment designers call for five classes, the ultimate decision as to the number of classes to be established will rest upon the fact that more of these boys will be engaged in the garment industry than in the automobile trade. Notwithstanding that only 7 per cent of the girls designate home-making as their goal, home-making classes may be formed upon the assumption that every one of these girls will need some home-making and most of them will eventually need nothing but that. Of course, in giving names to classes it should be noted that dressmaking and millinery may both be taught either as home-making or as trade subjects, and, even if they are taught as trade subjects, much of what is learned will carry over into the home.

As has already been pointed out, the pupil's present job only accidentally indicates the future vocation of the pupil, and training in school can be coördinated with the present only after careful consideration has shown that he intends to advance along the line which it indicates. Rather than attempt to place a pupil in a class appropriate to the kind of work he is doing, the school should first place him in a class fitted to his vocational aims and then should endeavor to find him a job which will enable him to secure training and to obtain promotion in the new position.

In dealing with boys and girls, especially those who

have not graduated from elementary school, one important point must always be kept in mind. The choice of a pupil is not immutable; in fact, it changes with the wind. Often, if the matter of choice were left to him, he would make no choice at all, and when pressed for some answer he would respond with the first thought that might come to mind. Of course, this is a problem in vocational guidance and must be handled as such; but it has, as indicated, an important bearing upon the organization of the school.

3. Making a Practical Program

The problem essentially one of grouping.—Assuming, then, that there is a definite number of pupils desiring each type of work and that efficient vocational counseling has determined that instruction along these lines would best serve the pupil and industry, the problem of detailed program-making arises. If there are twenty or fewer children of continuation school age in any one community, there can be only one class for one half-day and one teacher on part-time. The teacher will be a technically trained high school teacher relieved of other duty on one half-day of the week, or he may be either high or elementary school teacher assigned to continuation teaching on Saturday mornings. This teacher will teach both the vocational and the related subjects and will differentiate the instruction among the pupils only to the extent that his ingenuity and the equipment enable him to do so. In the sense that the numbers are small and the group is concentrated, the problem is simple; in the sense that variety is demanded of one teacher and in one unequipped class-room when both the

teacher and class-room are engaged for other purposes throughout the remainder of the week, the problem is extremely complex. So far as it can be dealt with at all, it will be discussed under Content and Method of Instruction, but it may here be said that the general principles applying to the large school can be applied in the small school with modifications for number. The possibility of differentiation within any one group in a large school indicates a similar possibility in a one and only group in a small community.

As soon as a second group of twenty pupils is formed, the possibilities begin to multiply. Consider:

a. Boys and girls may be separated, thus providing in each group activities specialized for boys and for girls.

b. The groups may meet on different days or at different times on the same day, thus accommodating employers who have more than one employee in the school.

c. One group may be a commercial group and the other a trade group, regardless of sex, thus giving greater satisfaction in the accomplishment of vocational aims.

d. Both groups may meet at the same time to pursue the same general vocational subjects, but with two teachers assigned to teach them, one a vocational teacher and the other a related-subject teacher, each taking one group for half the time. Any advantage derived from this arrangement will arise from the particular abilities of the available teachers.

e. The two groups may be differentiated on the basis of present employment, thus pleasing the employers and possibly the pupils themselves.

f. The groups may be arranged on the basis of previous school attainments, one consisting possibly of those

who have not graduated from the elementary school, the other being composed of graduates. As a rule, previous scholastic attainment should be lightly regarded as a basis for classification, except where it is indicative of vocational differences, or as a temporary concession to school tradition.

g. Classification may be upon the basis of chronological age, physiological age, mental age, or previous environment. In some towns it is conceivable that with only two groups one might consist entirely of foreigners for whom the course of study would embrace only English and civics.

With the addition of a third and a fourth group the process of differentiation has unlimited possibilities, barring only the limitations of available space and qualified teachers. The fifth group raises the question of assigning a full-time teacher to the position. The desirability of concentrating all the continuation work in one person, who will specialize in it, is very great and should outweigh, perhaps, any other consideration, especially if the teacher selected is versatile, adaptable, and progressive. The point must be emphasized that to teach the same subjects each day, and to fail to classify the pupils on one or more of the possible bases suggested, is to neglect a most valuable advantage accruing from the attendance of various groups on different days. The addition of other full-time teachers requires that each be able to contribute to the continuation school some new and different talent, for nothing can be more unfortunate or a worse perversion of the intent of the school than to add teacher after teacher of similar, traditionally pedagogic training. So far as it is possible to do so, every trade,

profession, interest, and activity to be found in life itself should be represented in the school. This is fundamental to success. Therefore in the teaching corps should be men and women trained to render service in as many varied avenues as possible.

The teachers' apportionment of vocational and related work.—Practice differs. In the Milwaukee schools, for instance, the vocational teacher teaches both the vocational subject and the related academic work. In the New York schools the related academic work is usually taught by a different teacher, who is usually an experienced elementary or high school teacher. However, more and more, technically trained high school teachers are being assigned to related work and with marked success. Both procedures have marked advantages and equally marked disadvantages. Having all the subjects taught by the vocational teacher possesses the advantages following:

a. He knows the technical matter necessary for success in his vocation better than an academic teacher can know it.

b. He does not waste time on irrelevant and unimportant matter.

c. He is not bound down by the school-teacher tradition, but comes to the class from the industry with a fresh, practical point of view.

d. He can teach the related work *pari passu* with the vocational work and thus reap the psychological benefits of close correlation and immediate application.

e. Time is saved and disciplinary problems are avoided by obviating the necessity of changing teachers during the session.

f. Each teacher has fewer different pupils to supervise and therefore has more time to devote to each one for vocational guidance purposes.

g. One person gets a complete view of all the boy's aptitudes because he has the boy all the school time and therefore can serve more efficiently as a vocational counselor.

The disadvantages are also to be noted:

a. The vocational teacher is very likely, for various reasons, to slight the related work. This happens primarily because he is a worker, a doer of things, and is prone to belittle the theoretical.

b. It takes a long time, much energy, and considerable patience to train a trade-worker to teach his own vocation to others. The teaching of related subjects usually presents an added difficulty which the vocational teacher is prone not to wish to master or finds extremely difficult to overcome.

c. Very often he does not *know* the related work.

d. Not only is his technique of teaching likely to be poor, but the medium of presentation, the English language, is often deplorable. While the poor English is also unfortunate in teaching the trade, it can at least temporarily be tolerated there, since English in the outside shop is just as poor, but when the teacher tries to teach the language itself and subjects with a language content, correct use on his own part becomes essential.

e. The vocational teacher often lacks the larger outlook. While the academic work should in the main be related to the vocational subject, in civics, American history, economics, and hygiene, there must be a broader conception than mere relation to any one trade. To

convey this to the pupils requires a better scholastic training than the vocational teacher usually possesses.

The advantages and disadvantages of assigning the related work to an academic teacher are implied in the above. The decision of the administrator will result from a consideration of these arguments in connection with the type of teachers available. It will also be affected by the number of pupils desiring any one course of study.

If a full-time teacher of a vocational subject is available with just enough pupils to keep him busy for that full time without the aid of an academic teacher, it will be necessary to assign to him both the vocational and the academic work, regardless of other considerations. If a considerable group of pupils wishes vocational work for which no available teacher has been specially trained, it will be necessary to induce an academic teacher to make at least a book study of the subject and to teach it as best he can. If a small group of twenty, say, wishes to prepare for a vocation not usually provided in the schools, a trade-worker may be brought into school for one day a week to teach it. Such a plan has been tried for such subjects as commercial design, pattern-drafting and draping, and plumbing. There are difficulties in fitting the outsider into the routine and the spirit of the school, but if the right person can be found the plan can be carried out. The general principle to be kept in mind is that the organization should be flexible enough to provide for a fulfilment of the ambitions of as many young workers as possible (ambitions modified by the counsel of teachers), and that at no time should it be hampered by a rigidity borrowed from the full-time school. Teachers must not

insist upon teaching only their "specialties." They must understand that a teacher's specialty in the continuation school is the child himself, and that the subject taught is only a vehicle for leading the pupil into the right vocation and making him a worth-while citizen.

The assignment of men and women teachers.—Whatever opinions may be advanced as to the respective merits of men and women teachers in the full-time school, there is little room for doubt that in the continuation school men should teach boys, and women girls. The very nature of vocational guidance, trade training, and preparation for citizenship demands that the pupil get the point of view of his or her own sex. The personal counsel regarding health, morals, dress, and good fellowship that can be given to a boy by a man, who has himself been a boy, and to whom the pupil will speak not only as a teacher but as a man, is worth all the expert vocational guidance that can be given by a woman trained to the limit in her specialty. And the love, respect, and devotion to be won from her pupils by the whole-souled, broad-visioned woman is worth more to the girls than any trade or professional training to be given by any man teacher.

The vocational-academic team.—When there is a lack of proficient teaching of general or related subjects on the part of the vocational teacher, an academic teacher must be paired with a vocational teacher. Assuming the four-hour session either in the morning or the afternoon, it is usual to divide the vocational and academic work into two equal periods. Each of the pair will start with one group, his official class, and in the middle of the morning or afternoon the two will exchange classes. If an

assembly is to be provided for, an equal amount of time will be taken from each period. The official teacher keeps all the records of his official class, and the members of it are his especial charge in matters of vocational guidance.

Provisions for assemblies.—During the week ten different groups of pupils attend the large double-session school. For each one of these groups the other nine have no practical existence. For any general activity to reach all the pupils it must be presented ten times. For each group to have an assembly period once a week ten assemblies must be held during that time. It seems desirable that assemblies should be held as often as possible, for the benefits to be derived from them are marked. Whether the assembly is to take place at the beginning, the middle, or the end of the session, is a matter for experiment in the particular school. When the best time is decided upon, other time schedules will be arranged to conform accordingly.

Some incidental problems in program-making.—Where the vocational teacher teaches both the vocational and the related and general subjects and there is one four-, six-, or eight-hour session a day, the problems of program-making are comparatively simple. However, when there are two sessions of four hours each with a teacher teaching only half a day, and teachers are classified as either vocational or academic, numerous complications arise.

a. Teachers may be assigned to all morning classes, or to all afternoon classes, or may alternate between morning and afternoon sessions. No inherent virtue is found in any one of these plans, except that a certain

amount of uniformity makes it easy for the principal and the clerical force to remember who's who, when, and where. There are, however, more important considerations than this. There is no reason why the program should not look like a chess puzzle if it is devised for the greater good of the children.

b. If only one teacher teaches a subject, he should not be on a straight morning or afternoon schedule, as pupils desiring that subject should have the choice of either a morning or afternoon class in order that the proper adjustment may be made with the employer. In any subject as wide a range of opportunity as possible should be allowed.

c. Other things being equal, the teacher should be given a choice of time schedule. Most of them choose the morning time because it gives a clear afternoon not only for visiting but for college courses or for the personal affairs of the teacher. Where both teachers in any one subject wish the morning schedule the obvious thing to do is so to arrange that one gets three mornings and the other two. Where one wants an all-afternoon schedule, and some do, then it is easy to give the other teacher the morning schedule. Whenever a teacher desires to take a helpful college course, and his present program prevents, his program should be changed. The desire for self-improvement should be fostered.

d. Since the effectiveness of continuation school teaching depends to such a large extent upon the teacher's intimate knowledge of the pupils and upon a continuing guidance, any change in program should involve shifting as few pupils as possible. For instance, if a teacher with a Monday-Wednesday-Friday morning and Tuesday-

Thursday afternoon program is shifted to Tuesday and Thursday morning and Monday, Wednesday, and Friday afternoon, he will lose all his present pupils and receive an entirely new group. If for any reason a change is desirable on any one day, it should be made on that day only, regardless of any resulting lack of symmetry in the program. There should be continuity of teaching and retention of the same pupils wherever possible.

e. Preparatory classes must be given to teachers who are thoroughly experienced in continuation teaching, who have a complete knowledge of the purposes and methods of the school, and who are altogether sympathetic with them and with the pupils.

f. Both vocational and related subject teachers should be limited to the teaching of as few different subjects as possible. Otherwise the scattering of effort is likely to reduce efficiency. The extremely active and resourceful teacher may desire variety, but on the whole the individual pupils supply all the variety that any ordinarily active person is likely to desire.

g. The vocational leanings of related-subject teachers should be thoroughly canvassed and the teachers assigned to academic work of shops in which they are especially interested. In fact, whenever a change is contemplated, the wishes of the teachers should be consulted, although it will probably be impossible to grant all of them. Such a course prevents good talent from being wasted and makes it unnecessary in many instances for teachers to do uncongenial work. Information as to types of work teachers would elect should be obtained periodically and kept for use in future contingencies.

h. The physical conditions in the building may be a

determining factor in program-making and thus affect the operation of other pedagogical considerations.

i. The program should in all instances provide for a maximum use of equipment. Expensive equipment should not lie idle for part of the day. Teachers should be scheduled so as to occupy shops during the entire school day.

j. The number of hours per week during which the continuation school teacher can profitably and economically devote time to his work depends, as in any other type of work, upon the working conditions—the pupil-period load, the different types of work taught, the distribution of pupils among the industries, and the like. Practice varies for the eight-hour teaching day and fifty-week year to the four-hour day and thirty-six-week year. A medium which seems to produce the best results calls for thirty clock hours of service, twenty of which shall be for teaching and ten for coördination and records. In New York, if a teacher teaches from 8 A. M. to 12 M., it is understood that at least one hour in the afternoon is to be devoted to visiting employers and parents, and if for any reason the teacher's presence is needed in school, the time required is from 1 P. M. to 2 P. M. If the teaching is done from 1 P. M. to 5 P. M., then the visiting hour should be in the morning, with 11 A. M. to 12 M. as the hour in school if the time must be so spent. Teachers have straight morning, straight afternoon, or alternating programs. This involves only twenty-five hours of required service, but in practice this extends well over thirty hours. In Boston teachers serve from 8 to 3 or from 10 to 5 with a two-hour coördination period placed between the two two-hour teaching periods. It must be

remembered that efficiency will not be measured by hours of service. Other criteria must be set up. In any event, since the work is arduous, the compensation should be adequate. The salary should be equal to or greater than that of a high school teacher.

4. Attendance

Good attendance primarily dependent upon good teaching.—In its essential aspects the problem of attendance in the continuation school is similar to that in the full-time school. Good teaching will command the interest and therefore the attendance of the pupils, while effective compulsion will bring into the school those whose stubbornness or the ignorance of whose parents inclines them to remain away. All other things being equal, the effectiveness of the school will be determined by the percentage of voluntary or at least complacent attendance and the ineffectiveness by the number of cases requiring compulsion. If the school is ministering to the real needs of the children, then the antisocial group who rebel at attendance constitute those who, for the protection of society, must be compelled to attend.

The similarity of the essential features of attendance in both full-time and part-time schools does not indicate that there are no special problems arising from the fact that the pupils are employed and that for the most part they are boys and girls who have left the full-time school because of a distaste for school work or a lack of adaptability to the curriculum. However, despite this fact and because of the special type of instruction given in continuation schools, there is every reason to believe that the greatest emphasis should be laid upon excellence of

instruction and interest in individual pupils, with compulsion reserved for those who are not amenable even to the best of the positive measures.

In commenting upon the passage of the part-time law in New York State, Dr. John H. Finley, then Commissioner of Education of that State, asserted that "the part-time school is truly democratic only because it is compulsory; in other words, being compulsory it will truly be for all children rather than a favored few who might secure its advantages were attendance to depend upon desire and ability to elect it." In addition to this, it must be said that those who might possess the desire and ability to elect it would not have the opportunity to do so because they could not compete with those who did not have the desire and therefore could give more service in point of time to their employers. As indicated by the comparatively small number of instances where employers have voluntarily established their own continuation classes, it is not to be supposed that, for some time to come, most employers would not discriminate in favor of those young workers who could give them the greatest number of hours of service.

Positive aids to good attendance.—The continuation school must possess the virtues of any good school: effective instruction, good discipline, and fine morale. To an even greater degree than in the full-time school the pupils will sense the weaknesses which result in waste of time. Time to the worker means money. Unless the school provides compensation in the form of valuable instruction the pupil will make every effort to evade attendance, and justly so. Because of the special conditions found in the

continuation school, however, there are special measures contributing to good attendance:

a. *Coördination with the full-time school.* Many of the antagonisms and misconceptions of the prospective continuation school pupil are the result of misinformation or a lack of correct information supplied to the pupil when he leaves the full-time school. When supervising educational authorities regard the continuation school as much a vital part of the educational system as they regard the high school or the college and will take measures to prepare the pupils for it with the same thoroughness as is done for the more fortunate types of pupils, who are prepared for the older and therefore more firmly established schools of continued education, the necessity for adjustment to new attendance conditions will gradually disappear. The transition from one school to the other must be easily and quickly made. Then the initial difficulty of forcing attendance will be greatly lessened.

b. *Practical adjustments of the time of attending.* Employment and home conditions are often such as make attendance upon some days of the week or on some particular morning or afternoon extremely difficult. In these cases the difficulty can be overcome by adjusting the time to meet the convenience of the employer or the parent. Rigid insistence upon preconceived programs and a lack of flexibility in the assignment of pupils is certain not only to give rise to poor attendance but also to provoke resentment on the part of employers and parents.

c. *Employment bureau.* With only a slight degree of justice some pupils place the blame for unemployment upon the continuation school. The school must not only

combat this unfair contention but it must go further and establish a reputation as the best, perhaps the only satisfactory, employment bureau for young workers. When such a reputation has not been established pupils have been known to take the attitude that they need not attend school when they are out of a job. The need for work should be the very reason for keeping in touch with the continuation school by regular attendance. When jobs are obtained by the school there is an explicit understanding that the arrangement is conditional upon an agreement by the employer and the pupil that attendance be regular.

d. *Insistence upon "make-up."* Attendance will become extremely poor if an illegal absence on any one day of the week is not made up on another day of the same week. The opportunity, if present, of attending every alternate week, or even every third week without serious inconvenience to the pupil is readily grasped for the purpose of evading full measure of compliance with the law.

e. *Coördination with the employer and the parent.* Coördination is another measure of school efficiency but is here emphasized for its value in assuring good attendance. Whether visits be made primarily for vocational adjustment or not, the matter of attendance is always pertinent and can be made a prerequisite for any other kind of adjustment. When employers pay for the time at school they are entitled to the attendance of the pupil and the value received in instruction.

Negative aids to good attendance.—One method of stimulating good school spirit is that of rewarding or at least recognizing good work, good conduct, and regular attendance. A negative method of stimulating these

school virtues is that of withholding such reward or recognition. Whatever form this may take, it should be understood that attendance is a *sine qua non*, for merit cannot be acquired in *absentia*. The negative aid to which resort must be had when all else fails is punishment by the court. In its legal aspects the problem differs not at all from that affecting the full-time school pupil who is truant. After every effort has been made to get both pupil and parent to see the values to be derived from compliance with a good law, no sympathy need be wasted upon the offender. The exact nature of the penalty must be determined by circumstances.

The responsibility for attendance.—Within certain limits the responsibility for good attendance should be squarely upon the teacher. Experience indicates that good teaching, good discipline, good class spirit, and good coördination produce good attendance. It is equally true that once a high mark is reached, it is easy to maintain this as a standard. In any group, however, there will probably be truants. The teacher, who is primarily a teacher, vocational counselor, and coördinator, should not be compelled to spend an inordinate amount of time upon forcing into school the recalcitrant pupils. These should be referred to special attendance officers with police authority, and upon these officers of the law should be placed the responsibility of enforcing the law where the advantages and opportunities of education fail to allure.

Even the resort to force through reliance upon the law will not produce good attendance unless the attendance officers themselves and the judges enforcing the law understand the work being done in school and appre-

ciate the significance of the social background against which it was enacted. The initiative for bringing about this understanding lies with the principal. He must enlighten attendance officers upon the difference between enforcing the well-established full-time school laws and the comparatively new part-time laws. He must impress upon the officers the necessity for educating parents before "putting the law" on them. He must explain to the judge the aims and objectives of the part-time school. He will induce the judge to visit the school and will inspire an invitation from the judge to sit on the bench during the disposal of truancy cases. Each case must be carefully prepared by the principal or some one fully acquainted with its history and competent to present it adequately. The efficiency with which this phase of necessary but wholly essential work is done will determine to a considerable extent the success of the school.

CHAPTER V

THE CONTENT AND METHOD OF INSTRUCTION

1. The Course of Study in Terms of Function and Organization.

Subject-matter as diverse as the needs of the pupils.
For the younger group, vocational guidance essential.
For the older group, extension instruction essential.
Suggested courses.

2. Continuation School Conditions Affecting the Course of Study.

The teachers' previous training.
The development of pedagogic practice.
The characteristics of the pupils.
The pupils' jobs.
Mechanics of organization.

3. The Course of Study as a Workable Organization of the Content of Instruction.

The school job is the nucleus of related subject-matter, habits, and emotions.
The analysis of the school job as related to job specifications and job instruction sheets.
The "job" must be specialized for the continuation school.
The length of the course and the content.

4. The Course of Study Analyzed into Instructional Units; the Mechanics of Job Instruction Sheets.

The form of the instruction sheet varies with subject and teacher.
The instruction sheets must be made to work.
The job instruction sheet essential to continuation school teaching.
Summary of methods.

I. The Course of Study in Terms of Function and Organization

Subject-matter as diverse as the needs of the pupils.
—The foregoing consideration of the function of the

school and of its organization leads to the obvious conclusion that continuation school "courses" must, in theory at least, be as diverse as the needs of the pupils. For practical purposes, where the numbers allow for varied grouping, shop and class-room instruction may be so diversified through organization as to provide for many kinds of experience on the part of the pupil. In broadest terms the functions of the school are, for the younger, 14 to 16 year old group, vocational guidance and placement; for the older, 16 to 18 year old group, trade extension training, and, in so far as it proves possible, trade preparatory training. Through these the civic usefulness of the pupil is increased.

For the younger group, vocational guidance essential.—If it is to rest on valid ground, vocational guidance must avail itself of the result of organized vocational experiences. The pupil must exhibit a favorable or unfavorable reaction to the various types of work before it can be said that he has or has not an aptitude for any of them. These are the try-out or "prevocational" courses. They must be laid out for the more common trades and for commercial work—metal-working, wood-working, electric wiring and installation, auto mechanics, printing, and the clothing trades for boys; trade dressmaking, trade millinery, novelty work, power machine operating, cafeteria work, hair-dressing, manicuring, vocational home-making for girls; commercial occupations for both boys and girls. These try-out courses are especially designed for the younger group of 14 to 16 year old pupils. To have benefited from his continuation school experience the pupil should have come into contact with the practical work of all these occupations or of as many of them

as are necessary to find his bent. In connection with the practical work he will have been taught the related mathematics, drawing, science, and English, and the general academic subjects calculated to increase his civic usefulness. Therefore his course of study will consist of:

a. Practical work

1. Given in shops or trade-rooms approaching as closely as possible actual conditions in industry or business.
2. Taught in such manner as to meet continuation school conditions.

b. Related subjects

1. Given in shops or class-rooms in close relation to the practical work.
2. Having the general nature of technical instruction.

c. General academic subjects

1. Given in class-rooms and related or unrelated to practical work.
2. Designed specifically as training in citizenship, as apart from the citizenship training obtained from the vocational work.

For the older group, extension instruction essential.—Theoretically, vocational guidance should result, at or about the sixteenth birthday, in placement in an occupation indicated by the aptitudes of the pupil. Presumably the daily job will provide training in practical operations. The function of the continuation school then becomes that of supplying extension instruction. This takes the form principally of technical information, such as cannot usually be obtained on the job. Here especially does it become necessary to meet the needs of the individual

pupil. For this purpose coördination must be particularly effective.

Suggested courses.—In the practical work there will be a graded series of topics or “jobs,” each of which is complete in itself and is analyzed for instructional purposes. The related subjects will be taught, of course, in connection with these jobs. A suggested list for a number of possible courses is given in the appendix, followed by a typical job instruction sheet for each of the commonly taught vocations. They are selected to illustrate as many different methods as possible.

The general subjects will, as a rule, be taught as class lessons, but each lesson must then be an independent unit. That is to say, since during any session a new pupil may be in the class, the work must not be based on a previous lesson. Otherwise the new pupil will not be able to understand it.

Courses may be so organized that the first group of lessons or “jobs” will not only teach the elements of the subject but will provide a try-out for the pupil, while the later lessons will provide both preparatory and extension training for those whose aptitudes indicate the desirability of continuing the study of the subject. Remembering then the distinction to be made between vocational guidance primarily for the 14-16 year group, and trade extension primarily for the 16-18 year group, the courses listed on the opposite page are suggested as possible in a continuation school.

In considering the so-called “course of study,” it should be clearly noted:

First, that such a scheme is laid out tentatively as a norm. The amount and quality of the subject-matter

VOCATIONAL

Boys' Industrial

1. Electric installation
2. Wood-working
3. Plumbing
4. Printing
5. Machine shop practice
6. Auto mechanics
7. Sheet metal
8. Trade drawing
9. Tailoring
10. Any other subject required by the special needs of the community.

Commercial

1. Typewriting
2. Office practice
3. Bookkeeping
4. Salesmanship
5. Stenography

Girls' Industrial

1. Power machine operating
2. Novelty
3. Trade sewing
4. Trade millinery
5. Cafeteria

Home-making

1. Cooking
2. Sewing
3. Millinery
4. Child training
5. Nursing
6. Decoration

*Agriculture**Personal Service*

1. Hair-dressing
2. Manicuring

GENERAL

1. Hygiene
2. Civics
3. General arithmetic
4. General English
5. Economics

SPECIAL

1. English to foreigners
2. Academic to complete elementary school education
3. Mental defectives
4. Technical information for butchers, bakers, launderers, optical goods workers, etc.

will vary with the individual pupil; according to the educational, occupational, or social status of the pupil, all the practical work, all the related subjects, or all the cultural subjects may be omitted, or all the activities of the pupil may be concentrated upon one of these phases.

Second, that the "course of study" is only one vehicle for accomplishing the aims of the continuation school. The discussion of the aims and purposes of the course is

written upon the assumption that all the values accruing from other phases, such as coördination with employers, parents, and social agencies, or coöperation with health authorities, will be obtained.

2. Continuation School Conditions Affecting the Course of Study

The teachers' previous training.—The great danger to the continuation schools, as with any organized activity depending for its personnel upon men and women who have grown professional in another tradition, is that the attempt will be made, consciously or unconsciously, to serve the new purpose through the old methods. The success of the schools in their early stage of development depends naturally upon the work of people experienced in other fields of teaching. Preferably these will be the teachers who have had extensive training in both shop and class-room, but in any event they must have had adequate experience in one of these fields. The academic teacher will bring from the class-room of other schools the five formal steps, the logically planned curriculum, and a conservative, even static concept, while the shop men will bring no method or curriculum at all but will think only in terms of workmanship and the finished product. Neither attitude is conducive to sound continuation education. "Course of study" or "curriculum" must undergo continued modification at the hands of the practical man so as to become a series of organized experiences or "jobs" to be done rather than a number of subjects to be studied, while the "practical" man must realize that what is practical for production in industry

may prove wasteful for teaching in the class-room or school shop.

The development of pedagogic practice.—Assuming that vocational guidance, vocational efficiency, and civic responsibility are the aims of the school, it is probable that such knowledge and habits could be given through the traditional “lessons,” traditional in form though not in subject-matter, each of the lessons developed logically on the basis of the subject-matter. But the procedure would be inconsistent with continuation school needs. The plan would not be economical nor could it function efficiently because the results would be unsatisfactory; yet it could be used. Teachers can talk about vocational guidance, can give lessons on “occupations,” can tell the pupils about the results of surveys of industry, and can do all this by unfolding the simplest elements first and proceeding step by step to the more complex. Such has been the all too frequent procedure for other subjects in full-time schools. The conditions under which teaching must be done in continuation schools make it all but impossible to pursue any such plan without bringing about failure to solve the problem of the young worker.

The characteristics of the pupils.—The influence of the characteristics of the part-time pupil upon the organization of the school has already been indicated. These characteristics just as vitally affect the organization of the course of study. The predominant dislike of school and school methods makes desirable some kind of change in method; otherwise the pupil will be prejudiced from the first day in his new school. If, on the other

hand, the pupil left the full-time school because of financial stress he will not be content to spend his time on any but profitable occupations. There can be no fruitless disquisitions upon such topics as the use of the infinitive. If grammar is taught, it must be in direct relation to a gainful and desirable occupation. If phases of the occupation itself are taught, they must be presented at each session in such a way that a definite, concrete product will result, something the present value of which the pupil can readily realize, and not something the future value of which must be presented in vague terms. For the pupil whose special grievance against the full-time school has been failure in advancement, the work must be planned with emphasis upon the accomplishment of certain, worth-while tasks and not upon the amassing of blocks of knowledge with consequent shifting from grade to grade. Those pupils who left because of poor marks need much the same psychological incentive. When the task is satisfactorily or unsatisfactorily accomplished rather than rated according to percentages, and when the task is seen to be real and related to life, promotion or non-promotion is felt rather to be failure or success at accomplishing something that is real. Continued failure does not mean failure in school, but simply in that particular type of work. Instead of disgust with school the outcome will be a realization of failure in one of many possible vocations, and the natural result will not be discharge from school but transfer to another class.

Pupils who left the full-time school because as foreigners they were unduly handicapped will find in the continuation school a definite provision for the removal of the handicap, and they will be credited with accom-

plishment along this line just as pupils are credited with accomplishment along vocational lines.

Pupils who leave school with the sole desire to learn a trade will find in continuation school the greatest possible opportunity for discovering the trades for which they are adapted, for preliminary training and, later, placement in that trade, and then for extension training such as will, in conjunction with work on the job, make them efficient workmen. In a word, the course of study in the continuation school will attempt to meet fully the needs of every type of pupil who leaves the full-time school before graduation into college.

The pupils' jobs.—Whatever the ambition of the young worker may be for the future, his work in continuation school cannot be planned without reference to his present job, unless the present job is wholly undesirable even as a temporary arrangement to bridge the gap between full-time school and the job requiring skill, in which case the best thing the school can do is to find the pupil a new job. There must be the opportunity of extension instruction and training in correlation with his every-day activity. Such correlation is not possible with a fixed, inflexible, logically planned series of class lessons. Moreover, the habits of work acquired on a real job are likely to be much different from those demanded by the routine of the traditional school. Therefore, if these acquired habits lead to efficiency, or at least do not interfere with it, considerable waste is involved in trying to change them in the short period of four hours a week. Thus, the course of study and the manner of presenting it as something alive for the use of the pupils must be such that the routine of the daily working-world environ-

ment can be utilized in school. These conditions point to a method specialized to a high degree.

Mechanics of organization.—The first doubt of practically every person introduced to the continuation school is expressed in the query: "Is it really possible to teach anything in only four hours a week?" The skepticism implied in the question comes not only from the parent and the employer, but with even more insistence and usually with a more or less delicate touch of cynicism from the full-time teacher or administrator. Such a query, especially in the latter instance, arouses an irresistible desire to counter with "What have you taught our continuation school pupils during the twenty-five hours a week you have had them in school for the past seven to ten years?" Nor is this a flippant reply. If the continuation school were to carry over into its teaching method the subject-matter and the spirit of the full-time school, there is no question that any pretense on the part of the continuation school to "continue" education would be preposterous.

Another retort assumes that the young worker would receive no further education except for continuation school, and asseverates that four hours of school work are infinitely better than no hours at all, and that the "infinitely" part of the answer can be proved mathematically. However, the real answer assumes none of the usual postulates of the full-time school, but emphasizes the fact that there is a different approach, a different aim, a different spirit, and a different method. The method is partly the outcome of a conscious purpose and partly the outcome of the exigencies of the situation.

Success must be measured in terms of actual results and not in terms of probable accomplishment.

The four-hour period, the week's interval, and the constantly changing school population make certain specific demands upon the manner of teaching. For the general academic subjects each lesson must be a unit complete in itself; otherwise the new entrant finds himself bewildered, and the older pupil finds it difficult to pick up the thread from the previous week. The pupil who has been absent finds the difficulty increased. For the practical work each lesson must be a job, something to be done, and not simply a series of facts to be learned, or emotions to experience, or habits to be inculcated. The job, with the related subjects, must be such as coördinates with the pupil's work for his employer or with that of the position he hopes to hold in the future. It must eventuate in the conviction that a definite task has been accomplished and that it has a vital bearing upon the work of the world. Each job just grows out of the previous one of which it is a development, and the series must lead to a realization that upon the completion of two or three years of work a degree of proficiency has been acquired in some particular field. The method of teaching each job must be so devised that each pupil in a class may be on a different task, so that the pupils coming in to-day may start on Job 1 while the pupil of last year may be working on Job 55. In other words, the "project method" and "individual teaching" are not only a desideratum but a prime necessity. Except for the general academic subjects, the course of study has its being in the "job," and the method of teaching receives its life from the "job in-

struction sheet." In other words, the practical jobs with the related subjects, which are taught individually from instruction sheets, must be developed in a progressive series, while the general subjects, which are taught orally to a group, must be planned as unit lessons having no necessary relation to each other.

3. The Course of Study as a Workable Organization of the Content of Instruction

The school job is the nucleus of related subject-matter, habits, and emotions.—Just as there is a valid theory that the best education for citizenship is a full, rounded training for a vocation, there is a corollary that, pedagogically speaking, this desirable training can be conducted in detail through the performance of a good job. For teaching purposes, a job may be defined as an organized experience with related work. The related information, habits, and emotions will comprehend the life of the child in its broadest aspects. Considering the aims of the continuation school, as set forth in a previous chapter, it will be seen readily how this works out in practice. So far as the aim is *vocational*, the course of study provides for trade, business, or professional training and the giving of the related science, theory, drawing, or other technical information. This related information will not be given in distinct courses or in isolated lessons, but will be imparted in immediate relation to the job for which it is required. If the "job" functions in the life of the child, then the related information must necessarily function. In other words, this "functioning" itself which has bothered the educational theorists so long must of necessity begin to function.

So far as *vocational guidance* is concerned the series of jobs, or organized experiences, will be used to measure the success or failure of the pupil in the various lines of work offered. One of the weaknesses of previous efforts at vocational guidance has been the impossibility of passing any adequate judgment upon the aptitudes of the pupil. Before judgment can be valid there must be a life situation, or an approach to it. To this must be added, of course, instruction in occupations as such. The pupil learning to do a series of jobs in any one occupation must be given the background, the history, the atmosphere of the occupation. And this in relation to the jobs. *Citizenship*, or *civics*, will mean lessons on government, economics, history, and habits of good conduct. The theory of correlation should be abandoned at any point where it begins to strain and crack, and, fortunately, as lessons on citizenship are necessary, it is possible in most cases to relate the knowledge and habits to the vocation in such a way that they will be valued by the pupils and used at the appropriate time, not being put into dead storage, as is so often the case in the full-time school.

Good health in the continuation school pupil is good health for the worker, and ultimately good health for the community. It means a study of both personal and industrial hygiene, and a training in good habits. Since these are essentials in vocational success, they are at the same time necessary for personal and social comfort, for which reason they readily lend themselves to correlation with the job in the class-room.

The continuation school should foster *good social surroundings and culture*. If the class-room "job" is conceived in its broadest sense as a something to be done

along a line of the pupil's choosing, the necessary related subject-matter will comprehend culture in its best sense. The teacher with an understanding of culture will supply it, whether it be science, music, art, literature, or just every-day common knowledge. It may be an intonation of the voice or a gracious act. Full opportunity for the exercise of such culture will be supplied by the continuation school, as will be considered in a later chapter. It need only be emphasized here that culture is not distinct from the course of study and the "job."

The analysis of the school job as related to job specifications and job instruction sheets.—These are terms which have certain well-defined meanings in trade education. There are others, such as block, progression factor, checking level, and type job specifications. There will be no attempt here to explain these in detail, for they are dealt with fully elsewhere.¹ In order, however, that there may be common understanding of the manner in which trade teaching methods are applied to the continuation school and how the course of study is built up on the basis of the "job," it will be well to define these terms. It must be emphasized here that the technique of teaching is borrowed from those situations in which it is requisite that the highest efficiency be obtained with the least expenditure of effort and where the learner presumably has the same interest in learning as the teacher has in teaching, and where the learning is expected to culminate in money-earning power.

Richards's formula. A modification of the original formula, used by the Federal Board for Vocational Education, is

¹ Charles R. Allen, *The Instructor, the Man, and the Job.*

$$E = M + (T + I)$$

in which

E represents the *equipment, skill, and knowledge* required for efficient service in the trade to be taught.

M represents the *manipulative skill* required either with tools or in the control of machines.

T represents knowledge of the *trade technical content* of the particular occupation in question.

I represents the *general trade content* which can be shown to function directly in industrial efficiency.

Job analysis. This is "a scientific study and statement of all the facts (regarding a job) that throw light on its content and especially on its relation to the worker." ² "This important knowledge can be obtained only by careful examination, analysis, and recording of all the elements of each job, as well as of its surroundings and relations with other jobs in the same establishment. This presupposes the gathering of information methodically, disinterestedly, with the fullest scientific exactness possible in the consideration of human affairs."

Job specification. When such an analysis is used for the purpose of hiring and promoting employees, it is called a job specification. It tells what kind of job is to be filled and the qualifications necessary to fill it. The analyses used for purposes of vocational guidance are in large part in the form of specifications. They indicate to the teacher and to the aspirant the kind of work he will be expected to do and the qualifications he must bring to it.

Job instruction sheet or card. When the job analysis

² Quoted in *Job Specifications*, Bulletin No. 45, Federal Board for Vocational Education, p. 10.

reveals the various operations in detail, gives specific directions for the performance of each of these operations, and gives the related technical and general trade information, it is called a job instruction sheet. This is the immediate point of contact between the continuation school and the pupil. It is the tool, or perhaps the medium, through which the teacher brings about in the pupil an understanding of his own powers and at the same time observes these powers for the purpose of guidance. The form and practical use of the instruction sheet or card will be the special purpose of this chapter.

The following thirteen definitions are from the Federal Board Bulletin on the Machinist's Trade. It is to be noted that "job" is defined only for shop usage; in school it is either something that the young worker might be paid for if he were doing it for an employer, or some phase of industry isolated for teaching purposes, yet remaining an essential part of a productive and remunerative process:

Block. A block is a group of lessons on jobs which offer the same kind of learning difficulties.

Progression factors. Those manipulative or psychological elements which affect the power of the learner to grasp and use instruction, such as—

- (a) *Fear*, as of a new machine or of physical danger.
- (b) *Number of operations*, as they sustain interest and affect the attitude of the worker.
- (c) *Complexities*, the number of simultaneous operating points, requiring a man to think of several things at the same time, as in operating a hand-feed drill press.

These progression factors and others vary for different blocks; some will diminish as the learner progresses through the block, and others will increase.

Checking level. A checking level is a point in the progress of the learner at which various progression factors have attained a certain degree of intensity, usually established for each four to six jobs.

Type job specifications. A statement of the degree of intensity of the progression factors for the progress for the given checking levels.

Type job. An actual production job which closely approximates the type job specification.

Intermediate objectives. A statement of what the learner knows and can do for any given checking level.

Final objectives. A statement of what the learner knows and can do at the end of any block.

Job. Anything a man is paid to do.

Trade technical drawing. The special drawing of the trade taught in the particular form in which it is used in the trade, that is, blue print, sketch, etc., and only for the particular use for which it is needed in the trade, such as reading, laying out, checking dimensions, etc. This does not include general mechanical drawing, except for the training of draftsmen, in which case it then becomes shop work.

Trade technical mathematics. Special problems of the trade taught by the special rule followed in the trade, and carried on by the use of any specific device or devices peculiar to the trade.

Trade technical science. The particular scientific facts (not general principles) with which the individual comes

in contact in the actual practice of his trade, taught in terms of the actual manner in which these facts affect the carrying on of trade operations and processes.

General trade subjects. Subjects representing content that can be included properly in a vocational program because it can be shown that they function in the promotion of industrial intelligence in the industrial field as distinguished from the agricultural, commercial, nautical, and professional fields.

General trade organization. An appreciative study of the organization of which the group members form a part.

The "job" must be specialized for the continuation school.—It must be recalled that the theory of the continuation school is that there are young workers who must be guided into the occupations for which they have aptitude, that the school will give them opportunity to try out at as many occupations as possible to determine these aptitudes, and that once they have found their bents the school will try not only to find them positions setting them on the right road to a realization of their aims and a utilization of their abilities, but will also give them as much trade preparatory or trade extension training as possible. Therefore it is incumbent upon the school to bring into the school building as many and as much of the conditions obtaining outside as is possible. It is necessary to bring into the school the best training methods of the factory, the office, the profession, or the farm, and then to break such training content and method up into instructional units of four or eight hours each, giving due consideration to the school conditions mentioned above. The problem as stated carries with it the corollary that no "course of study" can be formulated and presented as a

good course for "continuation schools." While the results of efforts in this direction are given in this volume, it is to be remembered that they were worked out to meet specific conditions, and that under other conditions other results would have been obtained. It is only the *method* that is presented for its applicability to all conditions.

The length of the course and the content.—The pupil often begins his continuation school work under compulsion, after the spirit or economic circumstances have moved him to leave the full-time school. He stays until he reaches the statutory age limit. The law requires only the four (or six, or eight) hours a week during that period. Therefore neither the teacher nor the pupil is haunted by the bugbear of a certain amount of prescribed work. There are other conditions more exacting, but they are not arbitrary. The teacher of electric wiring is not required to produce a journeyman electrician at the end of a definite period; the teacher of home-making is not impelled to turn out certificated home-makers. But both must keep these young workers busy on elements of their subjects, such as are interesting, instructive, and diverse. The work must be interesting in that it holds the attention of the individual without the continued prod of the teacher. The incentive to rapid progress must be present. There must be no lock-step. Provision will be made for a pupil's working two, three, four times as fast as the average, or one half, one third, one quarter as fast. While there is no necessity of completing a certain amount of prescribed work, there is the necessity of providing two, three, or four times as much as might be prescribed for an average pupil. Thus there is always enough work ahead of the bright pupil to keep him inter-

ested. The work cannot be merely entertaining; it must bear upon the present or future occupation of the child, and what is more, the child must be fully conscious of that bearing. The instruction must be diverse so as to provide both for difference in speed and for differences in taste. The teacher must be master of the situation at all times. Provision for these requirements will be found in a series of "jobs" of such difficulty that the average pupil can complete one job in a period, even though sometimes it may be necessary to carry the job over into the following period. Each job must be a unit of accomplishment in itself so that the teacher can pronounce the effort a success or failure. Each job must present some new element of learning; there must be advance in one or all of the "progression factors," and what has been learned on previous jobs must be utilized in the succeeding job. Incidentally, these jobs should be grouped for the purpose of showing the pupil's progress from step to step and for crediting his specific accomplishment over a definite period. The grouping may be by "blocks" or by arbitrary assignment of ten or twelve or fifteen jobs to the unit.

The concrete nature of the job has been emphasized. This has been done because the job supplies the motive or the motif upon which to hang all the teaching of related information, which must be taught and taught well. The important point is that correlated matter be taught always in close relation to the job to which it applies. It has been suggested earlier that the theory of correlation be applied rationally and without violence. In a continuation school charts have been seen on which every phase of the lesson was correlated with every other, and in-

evitably on each was a place for ethics! There are lessons in ethics, in civility, in government which should certainly be taught, but it is not likely that they will tie themselves up to any particular lesson in electric wiring or sewing. They are more likely to derive interest from current events, a national holiday, or an incident in class or school. They will be taught as general lessons usually assigned to English or civics. Practically, place is readily found in the program for such lessons, for not every job carries a considerable amount of related matter in the prescribed subjects, so that whenever a hiatus occurs the general matter can be used. Lessons of this type will constitute a course in citizenship and in hygiene, and, when planned as unit lessons, may be used when the opportunity to correlate offers itself. There will also be general lessons in arithmetic and English, the kind of arithmetic and English that every one should know. This arithmetic would include that involved in such activities as making the home budget, sending postal matter, and developing thrift. General English would include that needed by the normal literate, such as writing a social letter, reading a newspaper, and conversing socially.

4. The Course of Study Analyzed into Instructional Units; the Mechanics of Job Instruction Sheets

The form of instruction sheet varies with subject and teacher.—There can and should be no prescribed form for the job instruction sheet. The personal preference of the teacher, the conditions in the shop, the character of the pupils, the available supplies and equipment may all differ from shop to shop, so that in any one school the

greatest efficiency may be accompanied, in fact result from, the greatest variety in lesson outlines. The only criterion applicable to all is that of adaptability to the work at hand. If the job sheet in use meets with standards set up for effective continuation school teaching, then it is a good job sheet. Judgment as to whether it does meet these conditions must be carefully rendered, however, for it will be found that if the standards are not kept continually in mind, teachers will easily veer off into traditional methods and ineffective teaching. Numerous styles are possible.

a. *Material.* Usually the job instruction sheets are handled by many different pupils, are used day after day, come into contact with all kinds of material such as oil, grease, glue, and whatever foreign matter may have adhered to the pupils' fingers, and are laid down and taken up many times during the progress of a job. Therefore the paper or cardboard must be stout. In the machine and auto mechanic shops, teachers usually prefer to mimeograph or blue-print the jobs on ordinary paper, back them up with heavy strawboard, and then shellac the face. Another method is to slip the sheet into a metal frame containing a celluloid window. In the wood-working shop the teachers prefer to paste the sheet on a $\frac{3}{8}$ " or $\frac{1}{4}$ " three-ply board, protecting it by shellac applied to the face. Where the usage is not so severe or the work so dirty, teachers find a light oak tag material sufficiently strong, while the face need not be protected.

b. *Method of reproduction.* It is essential that the making and reproducing of the instruction sheet be economical both of time and of labor. While copy is easily and quickly prepared for the hectograph, this

method does not produce a clear reproduction, nor is the duplication a quick process. For the duplication of drawings, shop men naturally turn to the blue-print. While the result is clear and at present conforms to shop practice, the duplication process is slow and comparatively expensive. The quickest and most economical all-round method is to mimeograph the sheets. The instructions are typewritten on the stencil sheet while the drawings are stenciled by means of the mimeoscope. A continuation school teacher should possess a modicum of skill on the typewriter, and a knowledge of drawing which can be applied quickly to the stencil. The information thus recorded can be printed on almost any kind of paper, even a fairly heavy oak tag. If the material is not strong enough it can easily be backed up with cardboard or a wooden board. This process has given the most satisfactory results.

c. *Arrangement of instructions and drawings.* The instruction sheet is for the use of the pupil, and in every respect his psychology must be considered. Solid reading matter without mechanical aids he will not attempt to comprehend. Even when every good device is used some pupils require external stimulus to induce them to follow written instructions. However, a few helps may be suggested. Each simple operation should be described in a brief sentence, and each successive sentence should be numbered consecutively. Each operation should begin on a new line. Instructions proper and the auxiliary information should be placed in parallel columns with the instruction and the related information set opposite each other, step by step. If instructions and information are combined, the pupil is likely to become confused. Draw-

ings should be used wherever they will make the instructions clearer. They may be detailed, showing only one operation at a time, or they may be general, showing the complete object. The best results seem to require the combination of both types of drawing. The drawing may be placed next to the instructions, or on a separate sheet, or on the page opposite the written matter.

The instruction sheets must be made to work.—That instruction sheets for continuation school pupils should from the first meet precisely the needs of those pupils is not to be expected. There must be considerable study of pupils' needs and of adaptation to conditions. Because of the incomplete knowledge regarding job sheets most teachers are likely to be skeptical as to the possibilities of making them function. First of all, the continuation school teacher must sense the fact that continuation school conditions are such that some kind of job instruction sheet is the only solution of the problem of effective teaching. He must be aware that in certain industrial situations the instruction sheet is used successfully. He must have faith in the ability of school men to modify the instruction sheet in such a way that it can be used successfully in the school. This faith will induce the earnest teacher to try the sheet for the purpose of noting wherein it fails to accomplish its aim, and then to modify it accordingly. When the sheet reaches the pupil the first difficulty is to get him to read it with understanding. Since the ability to read and interpret English is a factor, the teacher should concentrate upon this phase of the work. If the related subjects are taught by a second teacher, the latter should assist the vocational teacher. In fact there is no English more vital to the pupil than

that which enables him better to understand the job. Mastering the first job by means of the instruction sheet is a much more difficult task than performing succeeding ones. Learning to read and follow directions is just as important an accomplishment as is the doing of the job itself, and is therefore something to be taught. Teachers often do not realize that this means to an end is an end in itself.

In setting out to write an instruction sheet and then placing it before the pupil the teacher is first surprised to learn that many simple steps which he himself takes unconsciously and automatically require purposive thought and properly directed will on the part of the pupil. The teacher realizes that each move, no matter how simple, must be indicated and explained. He must himself become as a little child and then put down on paper all that which the little child would require for adequate instruction. The sheet should then be tried out upon a pupil, or even preferably upon an intelligent adult who is ignorant of the process under consideration. Step by step the operations should be followed through and explained (upon paper) until the person upon whom the experiment is being tried thoroughly understands. The explicit instructions as to what is to be done should be listed in one column, while the necessary auxiliary information (underlying principles, interesting analogies, and cautions) should be placed in the adjacent column. It is in this manner that many of the job sheets reproduced elsewhere in this book were built up.

In any vocational room there are numerous jobs which do not fall into any sequence of instruction but which nevertheless must be done. Cutting raw material in

preparation for a job, cleaning machinery, washing dishes, sweeping the floor, sorting waste, sharpening tools, keeping records, helping new pupils—all these are necessary. If they are not planned but are assigned in haphazard fashion and are not credited to the pupil, they become drudgery and are unwillingly and probably inefficiently performed. If they are analyzed with the same care as other jobs, if the analysis is developed into an instruction sheet, and if each pupil is at one time or another given an opportunity to perform each of the odd jobs at least once, an educational value will be extracted from otherwise dull routine, with a corresponding benefit to discipline and morale.

Whether the related subjects are taught by the vocational teacher or by another so-called related-subject teacher, effective teaching will result only from carefully planned lessons. If the related work is to progress parallel with the vocational work as it should, the same necessity for individual instruction sheets in academic work arises as in the vocational work. The instructions must be such as will enable the pupil to prepare his paper, to realize the essential relation between the arithmetic or English and the job, and to make a well-reasoned attack upon the problem. If it is arithmetic, the job sheet should give the solution of one problem in full, show its relation to the succeeding problems, provide drill, and then test upon the knowledge or skill gained. In any event, the pupil is enabled to make progress independently of the other pupils and for part of the period independently of the teacher.

The job instruction sheet essential to continuation school teaching.—While the technique of instruction in

the continuation school has been only partly developed, the indications are that such development will continue along the line of individual instruction sheets. Continuation school conditions demand it.

Striving to evolve an effective teaching technique, continuation school teachers have written many and varied instruction sheets. They will continue to produce these in quantity and in various styles until they become applicable to many different situations and then will be profitable to print. The ideal continuation school text-book will probably be a loose-leaf series of job instruction sheets to be distributed to students as a permanent text. In the appendix are given samples of such work. For the most part they are self-explanatory. However, the following may be noted especially with reference to the job on valve setting.

a. The initial step in planning the job instruction sheet is the determination of the needs of the pupil. Whether this be try-out, extension, or preparatory, it will have reference to a present or future occupation.

b. Within this occupation an instructional order must be determined, based upon a breaking up of the content into a series of jobs. This is job analysis and the instructional order results from a consideration of the progression factors. For instance, consider the work of the auto mechanic. Sometime in his career he must set valves, either as a distinct job or incidental to grinding or installing new valves. These premises granted, there remains the problem of content and method of teaching.

c. The content consists of:

1. Certain practical operations.
2. The names and use of materials involved.

3. Names and use of tools involved.
4. Related hygiene.
5. Related mathematics.
6. Related science.
7. Related drawing.
8. Related vocational guidance.
9. Any other pertinent related information.

The content under each of these headings must be selected, of course, with reference to the ability of the pupil to comprehend it and with reference to the maximum time for teaching. Especially must the science and mathematics be limited. When this information is laid out, it constitutes the job instruction sheet.

d. It is obvious that names and facts otherwise difficult to remember become vital when learned in connection with a necessary operation. "Valve clearance," for instance, sounds abstruse except when a definite, practical job centers in it. The expansion of metals is academic except when the job cannot be properly done unless that expansion is allowed for in the adjustment.

e. The items under Safety and Hygiene, Vocational Guidance, and Social Science have only an incidental relation to valve setting. There is here evidently a stretching of the correlation idea. In view of the value of a certain amount of group instruction and of well-knit unit lessons in Civics and Hygiene, it may be well to omit these subjects as part of this particular job. Moreover, since it is not felt imperative to give a mathematics lesson when no special mathematics is involved, the same attitude may be taken toward other subjects.

f. The method of presentation should be such as to make it easy for pupils to work individually and with a minimum of help from the teacher. The practical

operations are given in the simplest language and in the most elementary steps. References should be given so that answers to questions may be readily found. Directions should be given for enough writing to fix the subject-matter in the pupil's mind. Enough problems should be given to cause the pupil to use the information in such a way that it will become part of his permanent equipment. Unfortunately, this feature of the job instruction sheet is usually lacking.

g. Wherever possible the sheet should be accompanied by a drawing or other aid. Part of the pupil's work may be to make a drawing of his job. The valve setting job is made clearer and more intelligible by the diagram.

Summary of methods.—Methods of teaching are explained in this chapter and in the subsequent chapters on vocational and related subjects and on vocational guidance. The following summary is given for reference:

Analysis of jobs and outlines of subject matter are prerequisite to good teaching. These are illustrated in Appendix B, 1. The information entered on this card is valuable for the teacher, but cannot be useful to the pupil until written in the form of a job instruction sheet.

The job instruction sheet for vocational work is best illustrated in Appendix B, 3, and for related work in Appendix B, 5. This job instruction sheet must not be merely a series of topics, or problems, but must tell the pupil *how to do* certain things.

A class unit lesson is given to a group of presumably 15 to 20 pupils. It is planned and taught according to the best practices in class teaching in full time schools. It differs from these only in the fact that the subject matter is a unit, not depending for understanding upon a previous or a subsequent lesson. (This provision is

necessitated by the rapid turnover of pupils.) The essential features of a class unit lesson are given in Chapter IX.

Vocational subjects (taught in shops, trade rooms, and commercial rooms) should always be taught to pupils through job instruction sheets and the individual help of the teacher. In any class as many different jobs may be in progress as there are pupils. For short periods of ten or fifteen minutes the teacher may stop individual work to give to all pupils a shop talk on one topic (safety, general care of tools, etc.).

Arithmetic and English provide two kinds of subject matter:

- a. Special, arising out of the jobs in vocational subjects. This should be taught individually through the job instruction sheet.
- b. General, arising out of the everyday life of all good citizens. This should be taught to a group through the class unit lesson.

Drawing is related to specific jobs and should be taught through the job instruction sheet.

Hygiene and safety are in general to be taught through the class unit lesson. Special cautions in connection with particular jobs or tools should be given on the vocational job instruction sheet.

Civics, history, and labor laws are to be taught through class unit lessons.

Vocational guidance facts. The most effective vocational guidance results from try-out courses, individual conference, coördination, and placement. Certain facts, however, may be given on job instruction sheets in connection with vocational work, and other facts may be given in class unit lessons.

CHAPTER VI

VOCATIONAL GUIDANCE AND PLACEMENT

1. Vocational Guidance the Principal Function of the Continuation School.

The futility of some vocational guidance in full-time schools.
Vocational guidance factors in a continuation school.

2. Vocational Guidance Factors Considered in Detail.

School organization the initial determining factor.

The preparatory class gives the right start.

- a. Introduction to the school.
- b. Compiling vocational guidance data.
- c. Discovering and recording further vocational guidance data.
- d. Giving vocational, educational, and personal counsel.
- e. Vocational counsel through general lessons.
- f. Placement.
- g. Assignment to a regular class.
- h. Follow-up.

Ease of transfer from class to class essential.

Teaching vocational guidance facts.

- a. Social science.
- b. Preliminary or general lessons on the vocational virtues.
- c. Lessons on occupations.
- d. Related guidance information.

Each school job includes vocational guidance factors.

The related subjects include vocational guidance factors.

- a. English.
- b. Arithmetic.
- c. Hygiene.
- d. Social science.

Contact with the industries through representative speakers and through visits.

Coördination establishes the necessary contacts.

Placement must follow counsel.

Tests provide economical vocational guidance.

The teacher is the vocational counselor.

I. Vocational Guidance the Principal Function of the Continuation School

The futility of some vocational guidance in full-time schools.—If it is correct to assume that the work of the continuation school should be centered in occupations, it is pertinent to ask, Does the pupil's contact with the school organization and the course of study appreciably affect his choice of a job, does it make him more capable of filling it, and does it actually place him in it? In other words, Does vocational guidance function? During the past decade considerable has been accomplished toward the systematization of vocational guidance influences so that they may affect in a practical way the youth who leaves the school to make his own way in the world. It is neither too much nor too little to say that despite this valuable pioneer work, results in the vocational guidance field have given us only a certain amount of information about occupations. The imparting of this information and the giving of advice to the pupils have been left to pedagogically trained men and women without any assurance that the information would be used wisely or the advice taken seriously. Surely such a thoroughgoing course in occupations as that of Davis¹ could not but change the trend of boys' and girls' ambitions, but the sad fact is that the young worker, when thrown into the field of juvenile employment, is subject to immediate and insistent economic forces too strong usually to be resisted or modified by the past and fast-fading precepts of school-teachers. The faith which the pupil is likely to have in such teaching can be easily de-

¹ Jesse Davis, *Vocational and Moral Guidance*.

duced from a consideration of the reasons for leaving school discussed in the chapter on the Characteristics of Part-time Pupils.

Of the present types of full-time schools, the trade school comes nearest to functioning effectively in vocational guidance, but even here certain essential factors are missing. The choice is supposedly made when the pupil enters. There is no tentative attitude. The job is always in the future; the teaching is always bound to be a few steps removed from actual industrial conditions; and, above all, there is no breadth of opportunity such as will provide for the poet and the clergyman as well as for the blacksmith and the wood-worker. Moreover, the over-aged youngster who leaves the elementary school a scholastic failure receives no encouragement in a trade school the business of which is obviously to make a good trade-worker out of the best available material and not to salvage the incompetent or the boy who is economically handicapped. The coöperative school does better in some respects. There is immediate contact with the job; there is effective coördination; but under present conditions, at least, the contact is with a very small percentage of children, and these usually of the more intelligent type. The upper tenth, educationally and economically speaking, are vocationally guided, but this tenth is the least in need of such guidance.

A consideration of vocational guidance forces leads to the conclusion that more of these are present in the continuation school than in any other type of educational organization, and that if there is any phase of continuation school work that should receive more emphasis than any other, especially for the younger group, it is this.

What follows in this chapter will not be a summary of possible vocational guidance influences, for these have been discussed elsewhere, but rather a consideration of practical measures such as have operated successfully in a continuation school.

Vocational guidance factors in a continuation school.
Stated briefly, these vocational guidance factors are:

a. *The organization of classes and the selection of courses of study* on the basis of a school occupational survey of part-time pupils and a community industrial and commercial survey will in themselves constitute a determining factor. If the number of pupils in any one vocational class, and therefore the opportunity to get into that class, are determined by the number of adult workers in the community doing that kind of work and by the number of juvenile workers who will probably engage themselves in it later, the organization of the school becomes a factor in guiding the pupils into or away from that trade. This applies to both prevocational and extension classes. The pupil will be guided in part by what he happens to get and to like best.

b. *The preparatory class* (variously known as the entry, reservoir, or vestibule class) serves as a reception-room and laboratory where the teacher examines the pupil's record, tests his ability, and interviews him personally, to the end that he is given his initial direction and impetus as to the right class and the right job.

c. *A flexible transfer system within the school* brings home to the teachers and to the pupils the fact that no choice of occupation or class is irrevocable, but rather that the purpose of the school is to try out the pupil in

as many occupations as necessary that he may find one for which he is best fitted. Failure is as important for the purpose of vocational guidance as is success.

d. *A series of definitely planned lessons in vocational guidance* provides information upon:

1. Civics, economics, labor laws (social science);
2. The general vocational virtues inherent in all occupational life;
3. The advantages and disadvantages of the various occupations;
4. The specific vocational significance of each job taught.

These four groups contain all the definite lessons planned to give information helpful to the pupil in choosing a future occupation.

e. *The course of study is arranged by jobs*, and the teachers are so trained in their functions as vocational counselors that success or failure is apparent and is recorded at practically every stage.

f. *The lessons in related subject-matter* (usually English, mathematics, drawing, and science) are so planned that success or failure in them also indicates the probability of the pupil's succeeding or failing in the work in which he is engaged.

g. *Representatives of the various industries and professions visit the assemblies* to bring to the pupils testimony as to the allurements, the drawbacks, and the requirements in their respective fields.

h. *Pupils are taken on visits to various plants* and to industrial exhibitions to broaden their view of the opportunities offered in industry.

i. *The teacher coördinates the activity of the pupil in school with all the child's other life contacts, principally through visits to the employer and the parents.*

j. *The continuation school includes in its organization a placement bureau.* Unless an attempt is made actually to place the pupil in the job which will ultimately, through promotional possibilities or the training involved, lead to the goal of his ambition and the fruition of his accomplishments, vocational guidance is likely to consist of nothing but vacant futilities and vain imaginings.

k. *The continuation school makes use of mental, physical, and trade tests.* The results of each of these can be used to some extent to guide the young worker along the path leading most likely to greatest vocational success.

l. *All these agencies assume the teacher to be vocational counselor, not only as regards the particular occupation which he teaches, but in all aspects of the pupil's life, whether industrial or social; and, as coördinator, the teacher makes the contacts which would otherwise be casual or entirely lacking.*

2. Vocational Guidance Factors Considered in Detail

School organization the initial determining factor.—The principles underlying the organization of the continuation school, especially with regard to the subjects taught, have been already explained. It remains to emphasize the influence which such organization has upon the choice of classes or courses by the pupils. The danger is that too free a choice will result in the organization of classes for pupils who have no chance of succeeding

in the subject taught or no reasonable hope of finding employment even should they succeed in acquiring the subject-matter. A great many boys ask for auto mechanics and as many girls for commercial work. For the boys, the desired field is overcrowded, and the number of boys who elect auto mechanics with any other desire than that of sitting in the driver's seat and making the car spin is very limited. Among the girls the desire for office practice is engendered in many instances by the lure of employment that is clean and presumably genteel. This desire is accompanied as often as not by inability to write English or even to add simple figures correctly. So organization on the basis of mere desire would lead young people into lines for which they would be unsuited or in which many of them could not find employment. The proportioning of classes on the basis of vocational demand and supply in the community, coupled with a corresponding selection of pupils on the basis of simple preliminary tests, provides a first step in vocational guidance.

The preparatory class gives the pupil the right start.—In so far as the pupil is concerned, his first contact in continuation school is with the preparatory class. It is here that he is first made conscious of the fact that the school is interested in his job and in his career. The interview, the examination of previous scholastic record, the lessons on occupations, the visit to the various classrooms, and the interviews with the employer at the place of employment are the principal measures used to get the pupil properly started. Were it feasible, these means would always be supplemented by a visit to the home, or parents would be required to visit the teacher. Every

possible means is used to avoid lost motion, to form the best possible judgment as to the training for which the pupil is best fitted, and to impress him with the real purpose of the school; in short, to adapt him to life.

The never-ending stream of pupils pouring into the large continuation school makes the preparatory or entrance class an absolute necessity. In the medium-sized school such a class is an invaluable aid to good vocational guidance and efficient administration, while in the small school the purposes and the spirit of the preparatory class should be accomplished through the director or the regular class teacher. The purposes of such classes are:

a. To introduce the pupil to the continuation school idea, to adjust him to the routine procedure of the school, and to explain coördination with the job and the home.

b. To compile the vocational guidance data already gathered through other agencies such as the elementary school, high school, attendance bureau, board of health, and charity organizations.

c. To discover and record further vocational guidance data.

d. To give vocational, educational, and personal counsel through private interviews with each pupil.

e. To give vocational counsel through class lessons on occupations and through visits to the vocational classes.

f. To place the pupil in a suitable job if this has not already been done when he enters the school.

g. To lay out a tentative school program for the pupil.

h. To follow, through the preparatory class teacher, the vocational career of the pupil both in continuation school and on the job, so that vocational guidance may become a continuing and continuous function. This

assumes that one of the other plans mentioned below is not adopted.

The theory of preparatory class work is simple and, if the number of pupils concerned is small, the problem of class management does not arise. When large numbers are concerned, however, serious pedagogic and economic waste results unless the teacher employs an efficient and specialized technique. This point cannot be too strongly emphasized. The constantly changing register of pupils, the entrance and discharge of pupils during the period, the lack of familiarity on the part of the pupil with the school spirit and routine, all make the task a difficult one, especially as it is absolutely essential that the new pupil be introduced to the highest standards of discipline when he first comes in contact with the school.

a. *Introduction to the school.* The aims, purposes, organization, and routine of the continuation school differ so markedly from those of the full-time school that a definitely planned procedure is necessary to adjust the pupil to his new environment. Otherwise the friction generated through misunderstandings will lower immeasurably the effectiveness of the school. All the activities of the preparatory class should be directed with this introduction to the school as a primary, or, at least, a secondary, aim. The hearty hand-shake of the teacher, the friendly greeting of a pupil host, a letter of welcome, a personal interview, a brief written description of the school, an oral class lesson on the nature of part-time work—all these contribute to a kindly attitude on the part of the pupil toward the school.

b. *Compiling vocational guidance data.* The pupil

comes to the continuation school with considerable school and home experience behind him. The full-time school has recorded his educational successes and failures and often has on file the results of physical examinations. In addition, some schools have gathered facts regarding family conditions and social contacts. In truancy cases the attendance authorities have made available still further information of this nature. Where poverty has existed relief agencies will have probed even more deeply. The preparatory class teacher should collect and collate these facts so that they may be duly weighed in determining the boy's program in school and his future career.

c. Discovering and recording further vocational guidance data. However full the existing data may be, further questioning, testing, and investigation will be necessary. A personal interview, a simple but comprehensive written test, a trade test, a general intelligence test, a visit to the employer, a visit to the parents, and consultation with doctor and former teacher will supply the information requisite to adequate counseling. The teacher's task is to diagnose and prescribe for the child as carefully and as scientifically as does the physician. The factors entering into such diagnosis and prescription are those generally recognized as of vocational guidance value. The varying emphasis to be placed upon the different phases of this guidance must be determined by local conditions and by the pupil himself. What these factors are in New York City is indicated by the preparatory class booklet reproduced in the appendix. Much greater emphasis should be placed upon standardized intelligence and trade tests, but the high cost in both energy and money, not to mention the lack of progress

made by psychologists in devising useful tests, has made impossible any adequate work in this field. Moreover, it must be noted that no amount of study or application of recognized vocational guidance methods can take the place of the personal keenness, sympathy, insight, and general and vocational intelligence of the preparatory class teacher who is the vocational counselor. The conduct of this initial stage of continuation school work requires for its successful prosecution the highest type of personality combined with careful training as a part-time teacher and considerable experience in one or more of the various occupations or at least a careful observation of them.

d. *Giving vocational, educational, and personal counsel.* The foregoing steps lead to a decision on the part of the teacher as to the best career for the pupil to pursue, or to a narrowing of the occupational field for the pupil. Especially among the younger pupils many choices will be tentative. With some pupils a choice is impossible. In seeking for the appropriate job, however, thought will be clarified and the will stiffened. In view of the tentative choice of career, the teacher will recommend a course of study. Many factors in the pupil's life, not usually reckoned as possessing educational or occupational significance, will be revealed during the testing, and it is upon this basis that the preparatory class teacher will counsel the pupil. Within the limits of available time and energy the efficient preparatory class teacher will be the friend and confidant of the pupil.

e. *Vocational counsel through general lessons.* The number of sessions during which a new pupil must remain in the preparatory class depends upon the rapidity with

which new entrants are received, the character of those entrants, the extent of facilities for gathering and discovering the necessary vocational guidance facts, and the limitation placed by the community upon the number of teachers to be employed. In the East Side Continuation School good results have been obtained when each pupil has attended three sessions before being transferred to a regular class. Therefore class lessons on occupations are planned in a cycle of three, thus assuring each pupil the benefit of all three lessons, although not necessarily in the same order. General knowledge of occupations is sorely lacking in those pupils who leave the full-time school. The preparatory class teacher opens up to them the possibilities of employment, the probable remuneration, the chances for advancement, and the congeniality of the work. This is supplemented by taking groups to visit the various vocational classes in the school, or if possible, the industries themselves.

f. *Placement.* Where the child labor law requires the pupil to obtain the written promise of employment before issuance of the employment certificate, theoretically the child comes to continuation school provided with a job. In practice, however, it is found that some promises are not bona fide, others result in only one or two days of employment, or the job is discovered to be altogether unsuited to the boy or girl. Thus it becomes the duty of the preparatory class teacher to place or to bring about the placement of the new entrant in a satisfactory job.

g. *Assignment to a regular class.* Vocational and educational counseling should culminate in laying out a tentative vocational and educational program. The former begins with placement, the latter with assignment

to that class which tries out, prepares, or trains for the prospective occupation. Despite the utmost care on the part of the counselor in carrying out painstakingly the foregoing measures, the assignment is usually difficult. Often little of a positive nature is revealed by the pupil. Only negative results are obtained. While these narrow the field and make possible a general classification into industrial, commercial and home-making, they do not point to definite occupations. Then the teacher must be content with a best guess. But as a result of the preparatory class work this guess is certain to approach more nearly a judgment than if it had been made haphazard.

h. *Follow-up.* When the vocational and educational programs have been drawn up and the first steps have been taken, the task of the continuation school has only begun. The program will be modified again and again. Additional information will be obtained, and the pupil will or will not accomplish certain tasks. The progress made in carrying out the programs should be followed up and checked by some one fully familiar with the facts. The preparatory class teacher is the appropriate one to do this, and he should do it if time and energy permit. The exigencies of the large school preclude much follow-up on the part of this teacher, since so many pupils pass through his class within a short period. In the small school this is entirely feasible, however, while in the large school the same benefit may be derived by appointing official teachers as advisors to whom pupils are assigned throughout their school career regardless of changes in program or subject. The pupil should have continuous and consistent vocational guidance.

The management of the preparatory class involves

individual teaching and control of a considerable number of new pupils who enter the class at any time during the session. The individual work assigned must be of such a nature that it can be followed and interpreted by the pupil with a minimum of attention on the part of the teacher. It must be of educational value and not mere busy work. It must occupy the pupil profitably while the teacher is giving private interviews to other pupils. All the factors in preparatory class vocational counseling must be provided for in a group of varying but often considerable size. A procedure which has been found highly successful is that which makes use of the preparatory class booklet already mentioned. This is handed to the new pupil when he enters the room. It provides immediate work, and the results, if the directions are followed, serve as indications of the pupil's ability. It is on the basis of these results that the teacher conducts the subsequent interview and records the results in the vocational folder already mentioned. The skill, tact, and sympathy with which the preparatory class teacher initiates the new pupil into the purposes of the continuation school has a tremendous influence not only upon the individual boy but upon the morale of the school itself. Therefore the preparatory class is the key to much that takes place within the school.

Ease of transfer from class to class essential.—The whole trend of detailed organization, of traditional school teachers, of trade men and women recently turned school teacher, and of short-sighted principals is to make courses of study rigid, to keep pupils in classes until they violently work their way out, and, in general, to resist anything that means movement and change.

It has been said of an English continuation school that, far from being like a school, it resembled nothing so much as a procession. That is just what it must be, an orderly procession. The pupil must be impressed with the necessity of making an earnest and sincere effort to succeed in any class to which he may be assigned. But when he has made such an effort and has failed, no creaking of administrative machinery or traditional aversion to change should make difficult the mechanical process of bringing about the change.

There are those who would route the boy through as many shops as possible on the prevocational basis so that he may be tried out for his aptitudes in each one. This is the practice in some continuation schools. Theoretically, the opportunity to try out a number of trades and to show varying degrees of proficiency in them would seem to imply the best kind of guidance, but before any such general scheme is adopted other factors of considerable importance must be considered.

a. If each transfer involves a change of teacher and change of vocational counselor, thus requiring a readjustment of human relations as well as of subject-matter, the loss of continuity may outweigh the advantage of a different type of experience.

b. If the changes are frequently made, only the very simple operations in any one trade can be tried. While these should probably indicate success in later operations, the continuity of instruction is broken, and the capacity for sustained effort in one line of work is not tested.

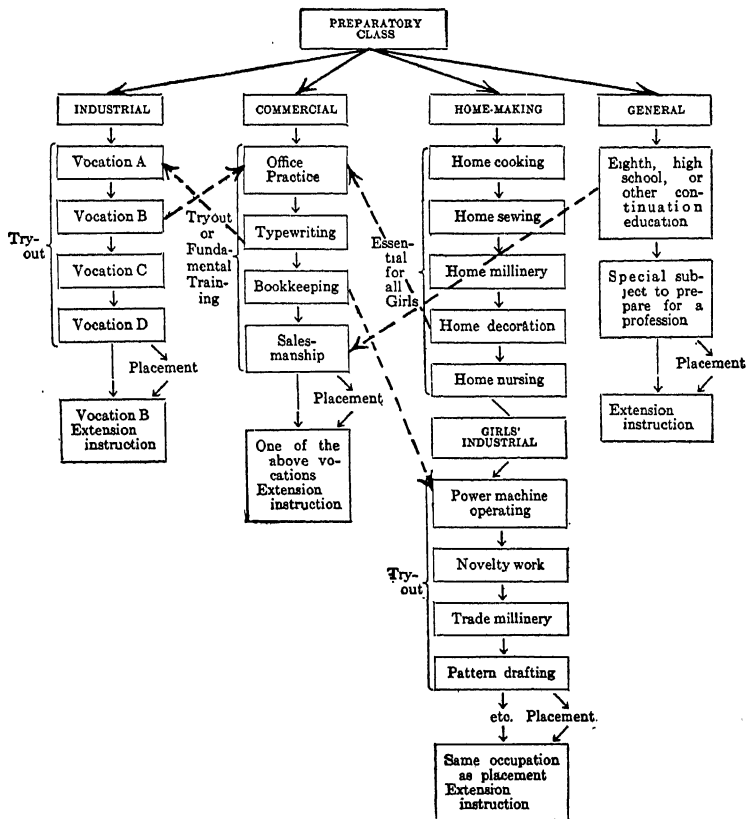
c. A shift from one trade to another should not be made unless it involves the trying out of different abilities. Assuming that two trades involve the same or

similar fundamental operations, and the same level of general intelligence is required for success, there is no need for transfer unless the numbers needed to supply workers demand it.

d. If the group ranges from 14 to 16 years only many will enter after the fifteenth birthday. The remaining time may be so short as to preclude any prevocational program.

On the opposite page are indicated some of the numerous possibilities for the pupil to progress in continuation school from class to class as a result of the vocational guidance influences brought to bear upon him in class and in private interview. It is obvious that at no point can the pupil's career be mapped out with finality. Each move is based on the facts available at the time. While the pupil may be tentatively routed from the preparatory class to an industrial, commercial, home-making, or general course, this plan may be upset at any stage by newly discovered talents, more happy placement, or an unexpected opportunity. There are many factors contributing to such changes.

Two propositions, often advanced by both schoolmen and laymen, deserve consideration in connection with this flexibility of transfer. It is suggested that the most effective continuation work can be done in a school organized in the factory, store, or office. The arguments for close correlation with the job, for strict adherence to the realities of business or industry, and for superiority of equipment are unanswerable. But these are training factors and obstruct rather than aid vocational guidance. The employer is naturally interested in training for efficiency in his own business. The worker who fails is



POSSIBLE COURSES IN CONTINUATION SCHOOL

(Full lines indicate the normal routes of pupils. Broken lines indicate transfers from one general type of instruction to another.)

discharged or is left to pursue his futile way in a non-promotional job. If he succeeds, there is no assurance that he would not have succeeded better in some other line of work. The world is full of men who have been only tolerably successful just because they were tolerably successful from the start. The plant school sacrifices the young worker, whereas the public continuation school fosters him whether he be a striking success from the start or whether he fail twenty times before finding himself.

The same criticisms apply in a somewhat smaller measure to the specialized trade or continuation school. Unquestionably a centralized school for printing or the metal or the wood-working trades offers advantages for training not to be approached by the general housing of a number of different shops in one building, but while the grade-school administrator and his teachers would have no immediate interest in the financial results of manning that particular trade with efficient workers, there could not be the facility of transfer to other schools such as obtains where the various trades and their teachers are in close proximity as part of the same organization. Inertia and mere lack of propinquity would react unfavorably upon the interests of the child who on the one hand was apt along many lines, or, on the other, possessed obscure or dubious talents. Distance of travel both from the home and the industry offers another obstacle difficult to overcome. All things considered, the general continuation school, at least in the early years of the young worker's industrial experience, seems to offer the most profitable solution of the vocational guidance problem.

Teaching vocational guidance facts.—If the acquire-

ment of vocational guidance information is left to incidental teaching, to individual counseling, or to outside agencies, the full value derived from an understanding of conditions in the field, of occupations, will be lost. The information must be organized and taught so that each young worker will have a general view of the field. Then lessons must be definitely planned, and must generally be scheduled as to teaching time; otherwise, in the attempt to assure the accomplishment of the traditional school aims through instruction in the various other subjects, the teacher is likely to neglect what is of primary importance. Such subject-matter should be organized into four groups of topics:

a. *Social science.* Whatever is taught under the heading of civics, economics, labor laws, industrial history, and geography will bear in some measure upon the choice of occupation.

b. *Preliminary or general lessons on the vocational virtues,* such as manner of seeking a job, making a good impression on the employer, traits most desired by an employer, and the like. These topics should be taught as a required part of the course of study. They should be given immediately upon the entrance of the pupil to the school, and after the series is complete the most essential lessons should be repeated. Suggested outlines for lessons of this kind are given in the appendix.

c. *Lessons on occupations.* The group of try-out courses can be varied enough to give a pupil an acquaintance with nearly the number of occupations with which a young worker should be familiar. First-hand knowledge through organized experience is possible in only a small number of selected occupations. This knowl-

edge must be broadened to a considerable degree by definitely planned lessons covering a range of occupations. Advantages, disadvantages, educational, physical, and moral qualifications, possibilities of advancement—all these must be made familiar to the pupil so that he may plan his future. These lessons should take the form suggested in the pamphlets of Brewer.¹ Generous time should be devoted to these lessons and a special time assigned for their use. Presumably they will follow the preliminary lessons mentioned above, but they may not.

d. *Related guidance information.* As indicated in the discussion of the job instruction sheet, a job may be accompanied by a definite vocational guidance lesson related to that particular operation or group of operations or to the trade in which the job occurs. This lesson is taught in connection with the shop work and has especial relation to the trade in which the pupil is receiving instruction. The content of such lesson will naturally refer more specifically to opportunities and advantages within the trade itself than to these advantages and disadvantages when compared to other trades. The latter would be included under (b).

Summarizing, under (a) and (b) the worker would receive instruction and training valuable to him regardless of the occupation he might select, under (c) he would receive information and counsel aiding him in choosing an occupation, and under (d) he would receive training enabling him to advance more rapidly in the chosen trade. If this is given in a try-out course, it

¹John M. Brewer, *Material for the Class in Occupations*. Bureau of Vocational Guidance, Graduate School of Education, Harvard University. A mimeographed pamphlet to be obtained from the author.

will, of course, serve the same purpose as the lessons in occupations.

Each school job includes vocational guidance factors.—Flexible transfers imply flexible teachers, flexible lessons, and even flexible standards. They mean discerning, sympathetic, and analytic teachers, who know and can separate out the skills and the knowledges required by the trade and can pass reasonable judgment upon the pupil's success or failure to acquire them. This must be done every lesson, every time the pupil comes to school, and within a reasonably brief time the teacher must be able to make a prediction as to whether the pupil is likely to succeed in the work he has attempted. For instance, in the wood-worker, (1) the ability to set and to manipulate a plane so as to produce a plane surface, (2) the nicety of touch and the precision of eye necessary to test a plane surface, (3) the steadiness of purpose to perform all these acts faithfully, and (4) the esthetic sense or the sense of good workmanship essential to a desire to produce a plane surface—all these must be objects of observation upon the part of the wood-working teacher. In the commercial student personal neatness and cleanliness, accuracy and speed in handling clerical material, and precise, courteous speech are characteristics upon which the commercial teacher must base a prediction as to success in this line of work. In so far as there are potentialities and probabilities of ultimate efficiency, the teacher will advise the pupil to continue his efforts and will give him appropriate training, but in so far as these seem to be traits which are not likely to be adapted to the pupil's purpose, the teacher will recommend transfer to another class. Each job, and each lesson, must include

vocational guidance factors, either skill or information until the pupil is so well along in any one course that his future is practically or quite determined, and the problem has become one solely of training in proficiency.

The related subjects include vocational guidance factors.—These are:

a. *English.* Obviously the English lesson may serve to convey occupational information. If English is taught for correct form, forceful expression, and the sense of beauty it conveys, the subject-matter should be as vital as possible, and occupational information is vital. On the other hand, since the technical aspect of English is also vital to industry and business, it too may and should be used for vocational guidance purposes. The mechanic who aspires to be a contractor must be able to write a clear and forceful letter. He must be able to convey in specifications an exact idea of what he has to offer. If he cannot do this and will not learn, he is to be discouraged from looking forward to contracting. The salesman must be a fluent, persuasive speaker with a wide and expressive vocabulary. The pupil who lacks these qualifications and shows no sign of acquiring them should be gently but firmly diverted from the selling field, while the student who promises well in this respect should be developed to capacity. These same considerations apply to any of the trades or professions. The teacher of the academic subjects must take the same attitude as the vocational teacher, and, on the basis of success or failure in any detail involved in a job, should advise the student as to the desirability of engaging in an occupation.

b. *Arithmetic.* The same reasoning applies to arith-

metic. For what vocations is *facility* in figures necessary, or accuracy without facility? When are facility and accuracy needed in using precision instruments, or ability to calculate mentally? A knowledge of lines and dimensions? An ability to calculate areas and distances without the use of instruments? The answers to these questions distinguish the bookkeeper from the surveyor, the blacksmith from the engraver, the printer from the carpenter. The school teacher may ask these questions by giving them a pedagogical bent. In what vocations is required an ability to work with accuracy? With interest? With rapidity? For what persons is it necessary to apply arithmetic to the ordinary affairs of life?

Here lies a fundamental difference between traditional elementary school practice and that of the continuation school. The former assumes at the start that a certain modicum of arithmetic is good for everybody and that the young person should be kept at it until he learns it; or, if he fails to learn it, he should be kept in the same "grade" term after term. The continuation school, on the other hand, assumes that if after six to eight years of school the pupil still flounders among the fundamentals, or is proficient in working with figures, he thereby provides facts to be used in advising him as to the kind of work for which he is best fitted. In other words, his failures as well as his successes are sign-posts on the road to somewhere.

c. *Hygiene*. Consider the possibilities for vocational guidance in the teaching of hygiene. How is the girl to be guided who desires to be a business man's stenographer but does not brush her teeth or clean her nails, or simply cannot be taught to dress neatly and maintain a smart

appearance? Or the boy who wants to be an auto mechanic but gets tired when he has worked for fifteen minutes while lying on his back under a car? Or the aspiring garment designer whose eyes will bear no strain? What of the child with dulled senses who wants to do work requiring a refinement of sight and touch, or the child whose thinking is pedestrian and yet whose physique will not survive hard manual labor? Lessons on fatigue, leisure hours, and the lighting, heating, and ventilating of work-places all contribute to the pupil's ability to choose a job wisely, and reflexly enable the teacher to advise the pupil wisely which job to choose.

d. *Social science.* In like manner the teaching of civics presents to the pupil problems of social and industrial organization from a point of view which enables the young worker not only to approach them as a citizen but as a worker who must choose and try to improve the conditions under which he works. Public employment agencies are in some States established by law. They can be considered from the standpoint of public welfare, but if the worker learns to use them to the best advantage an important step in vocational guidance has been taken. If the pupil understands that the sweat-shop is a public nuisance as well as an individual curse, he will be impelled to avoid engaging himself in sweat-shop industries wherever economic circumstances enable him to avoid doing so. If he is taught without bias the benefits and the shortcomings of labor organizations in relation to the public, he not only will be able to assume a reasonable attitude toward labor organizations, but he will be influenced in his choice of a vocation by the state of organization, or the lack of it, in any particular industry. The

same holds true of the discussion of other civic problems such as the industrial revolution, strikes, mediation and arbitration, workmen's compensation, the minimum wage, and the like. In the whole fabric of labor legislation are interwoven civic and hygienic problems with very definite relation to vocational guidance. There are, for instance, the basic eight-hour day, one day's rest in seven, the prohibition of night work, the fixing of hours of labor for children, minors, and women, the setting of a minimum time for lunch, the prohibition of certain types of employment for women and children, and the regulations for male and female messengers.

Contact with the industries through representative speakers and through visits.—The child, as well as the adult, is impressed by the man or woman who has had experience and success in any field of endeavor, and will accept his or her testimony with much more assurance than he will the second-hand information of the teacher. Every advantage should be taken of this fact, principally through the assembly or class-room talks of carefully selected men and women from the industries. They may represent and present either the employer's or the worker's point of view, and preferably both. An inspiring talk has been the turning-point in many a career. The continuation school offers exceptional opportunities for this kind of vocational guidance, for the vital interest of the pupil is aroused not only because his concern for a job is dominant, but also because through coördination the number of contacts which teachers have with employers is so great. This interest is heightened by the first-hand observation, made possible by periodical visits to the industries under supervision of teachers.

Coördination establishes the necessary contacts.—Coördination in its various phases is considered in detail in another chapter, where the possibilities of guiding children into the right job are discussed. It is sufficient to note at this point that coördination in this respect means, ideally, consultation with every one of those persons with whom the boy or girl comes into contact and by whom he may be influenced. The list includes the employer, the employment manager, the employment bureau supervisor, the foreman, the labor-union leader, the executive of the employers' association, the parent, the attendance officer, the school doctor, the family doctor, the trained counselor or interviewer, the librarian, the civic association official, the social worker, the club leader or scout-master, the Y. M. C. A. secretary, the clergyman, and the boy's own companions. Contact on the part of the teacher with each one of these persons may be impractical, but the possibilities must be kept in mind and as many contacts made as are found to be feasible.

Placement must follow counsel.—One obvious weakness in much of the vocational guidance work done in the schools has resulted from the lack of opportunity to bring the counsel to any kind of test or fruition. To advise a boy to do a particular kind of work is most often futile unless in some way he is given a chance to exercise his talent in this field or at least to place himself in line for promotion. Lack of a particular kind of initiative, lack of knowledge of the method of getting jobs, fear of a period of unemployment, fear of reduction of wages, may all be reasons for not grasping the opportunity for proper placement. It is the business of the continuation

school to overcome these obstacles in a systematic, effective way. That means a placement bureau operated in connection with the school.

Incidentally it may be noted that another important consideration, the attitude of the public and especially of that portion of the public comprising the parents, can be and has been perceptibly changed by the placement feature of the continuation school. Some pupils do lose their jobs because the employer will not make the necessary adjustment of time. The vast majority of children who lose their jobs readily blame the continuation school for it, although investigation proves that other normal conditions such as poor business, incompetence, or irregularity have been responsible. The only adequate answer to the criticism, "I lost my job," or "My boy lost his job because of the continuation school," is either, "We will get his old job back for him," or, "We will get him another job," both of these promises being conditioned of course upon the pupil's industry and good behavior. This promise requires fulfilment, and the only means of fulfilling it is through the organized effort of a placement bureau.

The haphazard manner in which boys and girls get jobs has its humorous aspects, but when one reflects that it is during these early days that the jobs determine to a considerable extent their future lives, one must pause and consider ways and means. Investigation has again and again shown that unless the continuation school or other guidance agency intervenes these are the favorite methods:

"I walked through the street until I saw a sign and then I went in."

"I got the job through a friend" (usually a companion who works in the same place).

"I just walked into the place and asked for a job."

"I saw it in the newspaper."

"My father (or uncle, or brother) got it for me."

"I went to an employment agency."

In order of their frequency these are the methods used. The most systematic, the employment agency, is the least used. Clearing-houses are common and are even indispensable in many lines, but clearing-houses for jobs and the jobless find little favor at a time when they are most necessary. The continuation school must initiate the habit of using them.

If the vocational guidance and trade extension aims of the continuation school are to be carried out, the following general principles must guide:

a. The placement bureau (or the director, or person responsible for placement) must observe the best practice in handling the office machinery. Standard record forms indicating jobs and pupils available must be kept in such manner as to effect a prompt and effective junction of job and worker.

b. The bureau must make full use of the case histories compiled for each pupil by the teachers and of the records of working conditions resulting from their co-ordinating activities.

c. The bureau must coöperate closely with the teachers so that placement will be an integral part of the school activities. This is especially true in connection with the work of the preparatory class and at that stage of the pupil's career when he is ready for placement on a job for which extension teaching is possible and de-

sirable. The aim of the placement must not be merely to find *a* job, but rather to find *the* job for a particular pupil. Vocational guidance must control placement.

d. Placement must not be limited to jobs available through employers' requests or to pupils who are temporarily unemployed. Placement must be active in soliciting jobs for pupils particularly fitted for definite types of work. Particular emphasis must be placed upon the desirability of placing the pupil in a job where he may obtain organized systematic training, for the futility of leading a boy to choose a vocation in which he later finds himself unable to obtain employment is obvious.

e. To promote the welfare of the pupils the placement bureau must make an especial effort to place them with employers who have the reputation of treating employees fairly. All the activities of the school, co-ordination as well as placement, should be directed toward the improvement of the status of children in industry, and no surer way exists than that of directing boys and girls to those employers who have the welfare of these children at heart.

f. The school placement activities must be made part of the vocational guidance instruction. That is, to impart to the pupil a knowledge of the functions of the employment bureau, the conditions under which it works and the measures it must take to function successfully, is to make him not only more intelligent in the use of the bureau but to provide him with information of considerable value in shaping his career.

g. The employment activities of the school must be advertised to both employers and parents. The success of the school will be measured to a considerable degree

by the success of its placement work. The fact that placement is one of its important functions disposes employers and parents to think of it as a different and perhaps more vital type of education than that carried on in the more familiar full-time school.

h. The employment bureau must be used as a selling-point when presenting to the employer the value of the school. If the employer conceives of the continuation school as an efficient agency which will to some extent assist him in the careful selection of personnel, he is much more likely to favor it. If in addition to this the point is made that after such selection the worker will be given supplementary or extension training, positive support is practically assured.

i. The placement activities must be free from taint of charity and must be wholly unbiased and impartial. They must not get jobs for boys just because they "need" them.

j. It is safe to say that a continuation school which does not carry on organized placement work is failing to meet one of its fundamental obligations.

Tests provide economical vocational guidance.—In considering the problem of vocational guidance it is obvious that there are two methods of determining aptitudes. One is by placing the boy in an actual job, either in school or outside, and then noting his success or failure in measuring up to it. The other is by giving tests which reproduce as nearly as possible the situations which arise in the job, and again noting success or failure. The test is a short cut. It saves time. It is also a substitute for a situation which could not otherwise be found. The situation must be created. It is also an economy as to

energy expended. A general intelligence test will save time, energy, and emotion for the low-grade moron who wants to be a confidential secretary. A physical test will function similarly for the weakling who wants to be a farmer, and a mechanical test will be economical for the awkward fellow who wants to be an auto mechanic. On the other hand, a high rating in any of these respects may reveal unsuspected talents which would otherwise never have been put to use or would have made themselves apparent too late in life to have been of practical advantage. Mechanical tests probably possess great future possibilities, but they must at present be used with a thorough understanding that they are in many respects crude and unreliable, and must be checked up by other evidence.

The teacher is the vocational counselor.—In all the foregoing little has been said of the vocational counselor as such. The probabilities are that no such person exists or at least exists efficiently. The effective vocational counselor is not one who interviews the boy, looks up his record, and then advises him, but one who comes into contact with him at many points, who observes his work in the school and on the job, who interviews employer and parents as well as the boy himself. He keeps in contact with the boy from week to week and from job to job. He is a friend. He is the teacher. All the vocational guidance activities center in him. He is the vocational counselor.

The weakness of this plan of having each teacher act as vocational counselor is that if a boy takes three or four try-out courses the responsibility for giving adequate counsel to the boy is divided and therefore not met. Yet

the counseling of a person who is not in close contact with the boy is not likely to result in real insight as to aptitudes and abilities. In the small school, where some one teacher meets all the pupils, the difficulty does not arise, but in the medium-sized or large school it must be met. This may be done:

a. By assigning one teacher, with adequate time allowance, to supervision of vocational guidance. The supervisor should *not* replace the teacher as counselor, but should, by checking up the results of the teacher's counseling, keep it efficient.

b. By making the preparatory class teacher a vocational counselor who will follow the pupil through the various classes and will from time to time confer with him. This plan, through the initial contact of the preparatory class teacher, provides for some first-hand knowledge of the pupil, but, after this contact, for only casual counsel.

c. By assigning each pupil to an official teacher to whom he reports for teaching during the first part of his course and to whom he continues to report for a brief period each session as long as he remains in school. By this method the teacher is enabled to maintain the continuity of the pupil's vocational guidance and at the same time to apply to his case the knowledge arising from an initial intimate contact.

CHAPTER VII

COÖRDINATION

1. General Purposes of Coördination.

Coördination a contact with all of life.

Coördination a matter of purposes or persons.

2. The Coördinator's Job.

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b. Personality.

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d. Continuous interest in pupils.

The teacher is the coördinator.

3. The Specific Purposes of Coördination.

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b. Observation of work required on jobs to which he may be promoted.

c. Obtaining material for instruction purposes.

d. Learning employers' desires regarding subject-matter taught.

e. Appropriation of practical industrial problems.

Maintenance of discipline.

Articulation with business routine.

a. Most adjustments are easily made.

b. Deduction of pay troublesome.

c. Threatened and actual discharge a serious problem.

d. Soliciting jobs for other pupils.

Obtaining occupational analyses, organization charts, and progress charts.

Giving personal advice and assistance.

Establishing contact with the home.

Establishing community coöperation.

Educational salesmanship.

a. Making a good start.

b. Making mechanical adjustments.

- c. Civic and social organizations quick to respond.
 - d. Printed publicity essential to a new movement.
- Coöperating with the advisory board.

4. Practical Administration of Coördination Activities.

The assignment of visits.
Time allotment and reports.
Shop teachers as coördinators.
The attendance officer as coördinator.

5. Some Views of the Function of the Coördinator.

1. General Purposes of Coördination

Coördination a contact with all of life.—Only the broadest interpretation of the term “coördination” will enable the continuation school to fulfil its primary function of vocational guidance, with supplementary trade extension and possibly trade preparatory training. In the strict sense, coördination means a tying up of the pupil’s work in school with his activities on the job. The work of the coördinator is to bring into the school the occupational environment and to take to the job the school training. In the larger sense, coördination connotes a resolution of the complex of forces impinging upon the young worker from many different quarters and many different persons, while the work of the coördinator involves contact through visits and correspondence with all the agencies affecting the pupil’s life. As has been stated in the chapter on Vocational Guidance and Placement, the belief of the writer, based on his experience as principal, is that the only effective coördination is that carried out by the boy’s teachers. These are the only school persons who can know him well enough to give him valid advice with sufficient influence to make it function. It is the teacher who can bring about a reali-

zation of that desideratum of the modern schoolman—the school that is life.

Coördination a matter of purposes or persons.—In dealing with the possibilities of coördination two modes of procedure are available: one assuming the purposes of coördination and describing the activities subordinate to them; the other enumerating the persons with whom the coördinator must come into contact and recounting for each one the purposes that may be served through a visit. While the latter method has the advantage of beginning with the life situation, working back to a logical classification, and thereby avoiding any false assumptions as to purpose, it would require too much reiteration to lend itself to an economical presentation. Moreover, the former method may be held to strict accountability as to practicality by a preliminary examination of the results accomplished through undirected visits. Such an examination is made in the following table.

Regardless of the theoretical purposes of coördination, it may prove that, in the early stages of the continuation school at any rate, certain immediate problems loom large and require more attention than others with more remote value. During the larger part of one year the teachers in the East Side Continuation School were required to make visits the purpose of which was left almost wholly to the initiative of the teacher. One reason was that for the time being, at least, the teacher was best able to sense the immediate need, and, more than that, teachers themselves needed a certain amount of experience to impress them with the relative insistence of various needs. Since that time much closer supervision has been given to this phase of the work. At the end of the

period the reasons for visits were tabulated, with the following results:

To parents for home coöperation.....	56	
		<hr/>
		56
Coöperation with employers		
to adjust pupil's time for lunch.....	15	
to verify statements of various kinds.....	71	
to promote punctuality.....	102	
to explain the use of the daily attendance certificate	45	
to promote attendance.....	188	
to prevent discharge.....	90	
to find out reason for discharge.....	56	
to explain the law.....	155	
"to secure coöperation," including payment of pupil for time in school.....	837	
to obtain help in disciplining pupil.....	122	
to arrange time of instruction.....	25	
		<hr/>
		1706
Correlation of school and occupation		
to obtain employer's opinion of pupil.....	119	
to find out what kind of work pupil is doing	142	
to observe working conditions.....	20	
		<hr/>
		281
To obtain teaching material.....		101
Placement		
to seek position for a pupil.....	103	
to find out whether pupil is well placed....	156	
to learn opportunities for advancement....	157	
		<hr/>

Community coöperation (social welfare).....	149
Self-improvement of teacher.....	78
	<hr/>
	2787

The examination of these figures, drawn directly from undirected coördination, along with a consideration of reported information not so easily tabulated, leads to a number of definite conclusions which must be kept in mind when setting forth the theory of coördination:

a. Before the shop can be brought into the school or the school into the shop, that is, before coördination in its strict sense can be accomplished, numerous mechanical adjustments must first be made, outstanding among which is the granting of pay for time spent in school. The results are satisfaction on the part of the pupil and his parents, and greater interest on the part of the employer because he pays for it.

b. The primary purpose stated in each case does not indicate the limits of the visit, for one visit may accomplish a variety of ends. It cannot be ascertained how many of these ends are accomplished in any one visit, but there is internal evidence that teachers need training in the technique of interviewing.

c. The primary purpose of a visit should be "correlation," with mechanical adjustments made secondary.

d. Certain teachers tend to certain types of visit. Some are bent upon obtaining pay for pupils, others upon abolishing lateness, and others upon getting material for teaching. It is obvious that some administrative help is needed to enable teachers to extract the greatest value from their visits.

e. In most cases visits accomplished their purpose.

f. Visits often result in a change of school subject for the pupil.

g. Most employers ask that the pupil receive a better grounding in elementary school subjects. Despite the feeling of educators that there should be more vocational teaching in school and the cry of employers for vocational efficiency, when the employer is pinned down to a statement of what he wants the school specifically to do, he asks for more efficient teaching of the traditional subjects. There is much to be said about this. It is only stated here as a fact. It may be, however, that he does not know what the schools do to help the pupil in becoming more efficient in his present occupation vocationally, and surely the employer's opinion is of little value if the pupil does not use the traditional subjects on the job. His opinion may be just a snap judgment.

h. Employers often suggest the correction of moral and civic weaknesses.

i. While the visits made on the teachers' initiative are valuable, it is evident that some kind of supervision is necessary in order that effort may not be wasted and energy scattered.

j. On the other hand, it is apparent that, whatever of theory may enter into the consideration of coördination, it must be evaluated and modified by the results obtained in actual practice.

2. The Coördinator's Job

Equipment of the coördinator.—In the case of any given pupil, who shall coördinate his work in school with his work on the job? The shop teacher? His teacher of related subjects? A special coördinator? A special

vocational counselor? The director? And if more than one person performs the duties of the coördinator, who shall coördinate the coördination, and how shall it be done? The answer will result from a consideration of the organization of the school and the personal qualifications of the teachers in it, and the conditions in the local industries.

a. *Familiarity with pupils' characteristics.* Visits to employers and parents are made in the interest of particular pupils or groups of pupils. The person making such visits must be familiar with the aptitudes, personality, and educational progress of the pupil concerned, and more particularly with the probability that the pupil will fit into a designated type of work. This would indicate that the visits should be made by the teacher who comes into close contact with the pupil, who observes him at his school work and has considerable opportunity to note his reactions to situations similar to those which would arise in his job outside. Since the trade teacher is the one more likely to have this information, it is probable that he could best fulfil this first condition.

b. *Personality.* If the school is to maintain contact with industry, and to make a favorable impression, it must do so through responsible and often influential employers. The person making the contact must be one whose training and personality bespeak the confidence and respect of the employer. In any group of teachers of equal teaching ability it may be questioned whether all will possess these special qualifications. In so far as they are lacking, those teachers must be eliminated from the coördinating staff, or, ultimately, from the teaching staff.

c. *Familiarity with occupations.* Effective coördina-

tion requires more or less extensive acquaintance with the occupations of the pupils and of those which they will probably enter later. Such knowledge of the general field may not be possessed by all teachers in a school. It may be some specialized knowledge on the part of a few. In so far as the others do not have such knowledge, it may be necessary to confine coördination to the few who do have it.

d. *Continuous interest in pupils.* Effective coördination implies cumulative and continuous counseling. If a pupil passes through a number of try-out courses, each course conducted by a different teacher, continuity will be lost if each one does the coördinating while the pupil is in his class. Such continuity must be maintained either through a thoroughgoing record, by confining the coördination to one person, or by assigning one person to supervise and unify the work of a number of coördinators.

The teacher is the coördinator.—Because these various factors in coördination must be considered under varying conditions, they often lead to contrary or conflicting practices. However, experience and a consideration of all the conditions lead to the conclusion that the pupil's own teacher should do the coördinating for him. Continuity and the elimination of overlapping must be obtained through careful supervision. Ability to meet and convince employers must be developed, while a knowledge of the general field must be obtained both through study and through more and more coördination. Moreover, it is obvious, on purely theoretical grounds, that the teacher who does not keep in close touch with industry cannot vitalize the teaching in shop or class-

room, and the one who lacks the personality to meet employers lacks personality to teach young workers to meet employers. The virtues of good coördination are comprehended in the virtues of good teaching. Experience with continuation teachers bears out the theory. In the transition stages, when the field from which selection of teachers may be made is limited, and time for training has been lacking, it may be necessary to put coördination in the hands of one or two of the more competent, but ultimately coördination should be a function of every continuation school teacher. The term "coördinator" means the person selected on the basis of the foregoing principles as best able to do the work of a coördinator.

Let it be emphasized, then, that the teacher is the coördinator, for he comes into weekly contact with the pupil, observes his abilities and weaknesses, and is therefore best able to tie up his school work with the job. But the teacher is more than that. He is the representative of the whole school, of the whole system of continuation schools, of the continuation school idea. He is the school, and he brings it to the employer because the employer cannot, or in some cases will not, come to it. Therefore, the language, the manners, the dress of the teacher must reflect the tone of the school, its purpose, its aspirations. He must know all about the school, the various activities going on in it, and its larger purposes beyond his own subject.

3. The Specific Purposes of Coördination

Summary of specific purposes.—In terms of immediate objectives coördination should accomplish the following:

- a. Promotion of instruction through
 1. Observation of pupil on the job.
 2. Observation of work required on jobs to which he may be promoted.
 3. Obtaining material for instruction purposes.
 4. Learning the employer's desires regarding subject-matter taught.
 5. Appropriation of practical industrial problems.
- b. Maintenance of discipline.
- c. Articulation with business routine.
 1. Making minor adjustments.
 2. Obtaining full pay.
 3. Preventing discharge.
 4. Placement.
- d. Obtaining occupational analyses, organization charts, and progress charts.
- e. Giving personal advice and assistance.
- f. Establishing contact with the home.
- g. Establishing community coöperation.
- h. Educational salesmanship.
- i. Coöperating with the advisory board.

Promotion of instruction the primary aim.—

a. *Observation of pupil on the job; b. Observation of work required on jobs to which he may be promoted.* Instruction in continuation school can be effective only if the subject-matter is drawn from the needs of pupils on their daily jobs and from the experience of workers on those jobs to which the young boys and girls in continuation school will probably be advanced. The availability and value of such information will vary tremen-

dously with both the job and the pupil, but any failure to recognize and utilize it spells failure for the continuation school.

c. Obtaining material for instruction purposes.

Records show that the number of pupils being taught a subject related to their daily employment varies from 1 to 90 per cent. It is obvious that this is a situation that should receive most careful attention with a view to improvement. The one outstanding reason for this variation lies in the fact that many pupils are in unskilled work, and the purpose of teaching them anything is to find out what they are likely to be able to do; they are receiving vocational guidance. This is, of course, a valid reason. The teacher can obtain teaching material only from jobs to which the pupil may be promoted. Even with the best intentions and a scientific use of the occupational survey, some subjects, as wood-working, are often given too much time because they are valuable traditionally, and others, as auto mechanics, because pupils ask for them. To preserve the proper relation to occupational opportunities, these subjects need close watching. Many pupils change their inclinations and their jobs, and close supervision is necessary to avoid faulty classification.

d. Learning employers' desires regarding subject-matter taught. Especially in the blind-alley factory job the employer will often raise objection to the teaching of a trade which will sooner or later take the young worker from his employ. The manufacturer of buttons wants to know why his errand-boy is being taught electrical wiring; the candy manufacturer questions the teaching of typewriting to his chocolate-dipper. The answer is

that the pupil is badly classified in school and should have the subject changed, or that the employer must create a line of promotion in his business, or that he must frankly recognize the character of some of his jobs and must either content himself with a high labor turnover or must hire workers with low-grade mentality. When the teacher, through a visit, creates an understanding of the situation, there is usually hearty coöperation. The important fact is that the visit is necessary to overcome the employer's prejudice. He must appreciate the school as a selective agency.

e. *Appropriation of practical industrial problems.* Coördination becomes most effective when the teacher brings back from the shop or the store or the office an actual problem for solution and assists the pupil to work it out satisfactorily in the class-room. For instance, a young Italian boy was working in a machine-shop where one of the products was a jeweler's lathe. The same type had been made for a number of years without the use of drawings. The teacher pointed out to the employer the value of working out the lathe parts on paper. The employer was pleased with the idea and allowed the boy to bring to school each week part of the lathe until it could be set up in its entirety. Part by part was drawn on tracing-cloth and then blue-printed, with the result that the boy obtained excellent practice in trade-drawing, and the employer benefited not only by the increased skill of the employee but by the possession of standard working drawings. While such close coöperation is not often possible, it can be obtained in varying degrees when the teacher tries in a practical way to coördinate school and job. One of the most important industrial problems

is to get the employer to provide organized shop experience which the school can supplement by giving a related course.

Maintenance of discipline.—While there is no reason to assume that the employer should handle the teacher's discipline, it is likely that he will be interested in the pupil's conduct if only on the ground that time wasted in school is a direct economic loss to the employer if he pays the pupil for time spent in school. It is fair, after other means have been exhausted, to take to the employer the problem of the recalcitrant boy. In many cases it will be found that the employee is delinquent on the job also and is in danger of discharge; in others, that the employee has been deceiving the employer as to conditions in school. In a few cases the employer will take advantage of the situation by abetting the employee in the hope that the continuation school will cease to make demands upon him. Here nothing is gained, but in the other cases very real help is obtained. Ordinary good business habits, if nothing else, are valued by the employer; indeed, as shown above, they are often the only suggestion he can make for the curriculum. Therefore it is likely that he will be glad to assist in teaching good manners, honesty, industry, neat dress, prompt obedience to instructions, and the like, to any one in his employ. These are occupational as well as school virtues.

It must be borne in mind, however, that in the school the matter of discipline lies with the teachers and administrators. They *should* be able to handle it, whether they are or not, without appeal to the employer. Theoretically the school is the school of discipline. The employer is not to give his time to disciplining boys outside

the job. He finds one reason for sanctioning the continuation school in the fact that in this school the boy is disciplined. In extreme cases the appeal, theoretically, should be made to the law direct.

Articulation with business routine.—The mere fact that one or two or ten or twenty juvenile workers are withdrawn from a factory, a store, or an office for a half-day in the week involves a certain amount of necessary adjustment on the part of the employer. If the worker's lunch period is only a half-hour and the time taken to travel from school to work or from work to school is half or three quarters of an hour, a concession must be made on the part of the school or of the employer in order that the pupil may arrive at either place promptly and still have time to eat. If the pupil is the only person doing a particular job in the establishment, the employer must arrange to have somebody else do it during the half-day absence. This is particularly troublesome if the worker is employed in a very small business or in a large factory where he performs one of a series of operations. If the employer deducts pay for the time absent from work, there is resentment on the part of the pupil. If the whole intent of the law or even its very existence is doubted by the employer, the employee suffers from discrimination if not from actual discharge. All these are conditions which are bound to require much attention in the early days of the continuation school in any community, and will always demand some of the teacher's time. They are therefore an appropriate phase of coördination.

a. *Most adjustments are easily made.* Most of these adjustments are easy to make if the employer is at all

reasonable and has the welfare of the individual worker as well as his own profit at heart, and the visiting teacher is fertile in suggestion as to ways and means. It is the business of the administrator to supply the teacher with as many devices as possible and to stimulate his imagination and tact so that he may promptly meet new situations. Take a simple case. The boy's lunch-hour is from 12:30 to 1 P. M., and he attends the afternoon session beginning at 1 P. M. It requires a half-hour of travel to reach the school. Obviously, there is no time to eat. The employer may grant him the privilege of leaving on school days at 12 o'clock, or the school may change his time to a morning session which ends at 12, enabling him to reach work at 1 P. M. In either case, the employer grants the needed time, as he should. If he is adamant and feels that he should not be called upon to make any further concession, it may be exigent for the school to allow the pupil special permission for the time being, to come late. In practice this is seldom necessary. If the employer is better able to spare his employee on some particular session during the week, the school should make the necessary transfer. Or the pupil may be allowed to come for two-hour sessions twice a week. Sometimes these adjustments involve a sacrifice of the pupil, inasmuch as he may not be able to get the kind of work he wants at the particular time the employer designates; but in these, as in all similar cases, the general attitude of the employer, the advantages and disadvantages to the boy, and the morale of the school must all be placed in the balance.

b. *Deduction of pay troublesome.* Two boys are doing the same work in the same place. One goes to con-

tinuation school, and the other does not. The first gets \$11 a week and the second \$12, the difference resulting from school attendance. The justice or injustice, the wisdom or lack of it from the employer's point of view, is outweighed by the feeling on the part of the pupil that he is being discriminated against because of the continuation school. Experience indicates that it is a good thing for the school to remove this discrimination. Otherwise school attendance takes on the complexion of a penalty rather than that of a privilege. The results show that the great majority of employers are willing to pay when they are assured of the coöperation of the school. In return for assurance of pay, the school should give the employer a weekly report on the boy's attendance, punctuality, effort, and proficiency, with the understanding that any failure to meet a fixed standard in these respects will result in loss of pay in the same manner that it would be lost were the pupil on the job. Sometimes a large concern has, as regards pay deductions in general, a fixed rule which it is unwilling to break, but it is willing to raise the basic pay of the pupil so that with the deduction he will get as much as he would did he not attend school. When operatives are on piece-work a very real difficulty is presented, as pay cannot be given for work not produced. In such cases the employer is often willing to allow the pupil to make up time. While this necessitates longer hours and is in that sense unfair, it seems the only way out until the pupil can command a higher piece-work rate of pay or can increase the quantity of production. A very real opportunity is then open to the school. Through more judicious placement in the same occupation or actual increase in efficiency the pupil's worth can

be enhanced to a point where the higher rate must be granted to him.

c. *Threatened and actual discharge a serious problem.* The law usually compels the employer to allow the employee time to attend school, but it does not and doubtless never can compel the employer to continue in his employ any particular boy or girl. If the labor market is depressed and he does not wish to give up the worker for the half-day, he can readily dispense with his services or threaten to do so. Even worse than this, he can make the boy so uncomfortable on the job that the pupil will attend irregularly and make a nuisance of himself when he does attend. In any event this situation presents an opportunity for an exercise of all the ingenuities of effective visiting. A certain number of failures must be written off as foregone conclusions. The fact is that thoughtful employers are converted to the continuation school point of view once it is properly presented. It is interesting to note the possible adjustments that may be made. The following are from the files of the East Side Continuation School:

A girl earns \$18 a week packing hair-nets, and her mother is entirely dependent upon these earnings. The employer does business on a small scale and cannot have one of his places vacant for part of the time. The teacher makes a visit but can make no impression upon him. The girl is excused from one session in school in the hope that something will eventuate. The principal suggests to the teacher that she make another visit the next week and propose to the employer that on this half-day the school send one of its unemployed girls to substitute. The employer accepts the suggestion, and then finally

decides that after all he *can* spare the girl for a half-day and that no substitute need be sent.

Another girl earns \$17 a week as cashier in a butcher shop and is the sole support of her mother. Clearly the school cannot send a substitute to a job requiring continuous responsibility. But a butcher shop does little business before ten o'clock in the morning, so that the girl can come from eight to ten on two mornings of the week. The employer is willing and the girl is delighted.

A boy works for \$17 as helper on a truck from eight in the morning to 3:30 or 4 in the afternoon. He is the sole support of a poverty-stricken family. The employer will make no concession, for the truck must be attended and no trips can be omitted. The teacher arranges to have the boy attend school from 4 to 5 on four days a week. On such a schedule he may not get very much instruction, but he is at least being saved for something better through vocational guidance and his mother and sisters have something to eat.

d. *Soliciting jobs for other pupils.* The employer who is pleased or even just satisfied with a continuation school pupil should want another one in his employ. If he believes in the value of education and if he appreciates the coöperation of the continuation school, he *will* want another one. On the other hand, the unemployed pupil is a charge on the school, and the school must bring the unemployed and the employer together through a placement bureau. This problem is discussed in full in the chapter on Vocational Guidance and Placement. It is sufficient to note here that every visit on behalf of a present pupil should be a visit on behalf of a prospective pupil or a present pupil out of a job, and wherever the

employer who has worth-while jobs is at all receptive to the proposal that he hire more pupils, he should be reported to the placement bureau for further systematic solicitation.

Obtaining occupational analyses, organization charts, and progress charts.—The possibilities of coördinating instruction with the job are given above. Such possibilities make it part of the work of the coördinator to bring back from the employer information which will enable the teacher to make occupational analyses, job analyses, charts showing the organization of the concern in which the pupil is working, and records of the pupil's progress from job to job. This is all essential information. These phases of coördination are a striking indication of the complex purposes which each visit may serve, and of the skill, energy, and tact which the coördinator must possess in order to gain the full benefit from a visit.

Giving personal advice and assistance.—So far as the individual is concerned, all the work of the coördinator should culminate in vocational, civic, moral, and social guidance, and it is to bring to bear upon the pupil all the forces of life that he must visit, or at least have some kind of contact with the various persons affecting the life of the pupil. The employer has been especially mentioned, but the "employer" may be many persons. He may be the president, the superintendent, the chief clerk, the foreman, the personnel manager, or he may be just "the boss" who is all these things in one. It is important to see the president, for he sets the policy, but it is also essential to see the foreman, for he knows the work of the particular boy. In practice the coördinator often sees four or five individuals in a firm before he has obtained

all the necessary information. The attitude of the boy toward new jobs and toward work in general is often revealed through consultation with the employment bureau of the school. In many cases the boy who complains most bitterly of the hampering effects of continuation school has been offered the greatest number of jobs but does not accept them or does not hold them. The attendance officer frequently possesses information about the boy's out-of-school activities, both in employment and in the home.

Establishing contact with the home.—To write the story of the home visit is to write a considerable part of the boy's life. Here are most often the influences which the teacher must enlist or combat. What the mother or father says or does, what the older brothers or sisters say or do, the food the boy eats, the room he sleeps in, the clothes he wears, the companions he pals with—all these are assets, or very often debits. It is through an understanding of home conditions that the teacher is enabled to account for acts and interests which otherwise would remain a mystery. As a result, valid, hopeful advice is possible. The boy who is starving for social contact or is being poisoned by a surfeit of the wrong kind of contact needs the attention of the club leader, the scout-master, the Y. M. C. A. secretary, the clergyman, the social worker, or the volunteer helper. And it is the duty of the coördinator to bring this about. The boy who does not read because he does not know what to read must be introduced to the librarian, or if he knows the librarian, the coördinator must learn from this source what the boy's interests are. The boy who is physically below normal will need the doctor. If he has already received

treatment, the doctor will have valuable information for the teacher. These are the contacts which make for the normal life, and it is only through their tying up, their correlation, that coördination may in its best and widest sense be said to function.

Establishing community coöperation.—No public institution can long survive unless it has the support of the people who pay the bills and of those who are directly affected by its operation, provided the former are in the majority and the latter constitute a responsible group. The continuation schools can maintain their place in the educational system only so long as they have at least the passive and preferably the active backing of business men, labor men, and parents, and also of the pupils themselves. Most important, probably, is the coöperation of the employers. Superficially, this would seem to be the most difficult to obtain, and perhaps it is, but if the employer can be shown that something is definitely accomplished by the pupil, that this is either directly or indirectly reflected in the work on the job, and that the pupil is made a more moral and law-abiding citizen, it is remarkably easy to obtain. This is true in all except the cases of self-centered, grasping, unsympathetic employers of the small type who give no place to the consideration of the needs of growing youth and future citizenship. The "if" involves not merely a convincing manner of presentation but the opportunity to deliver a product that is absolutely sound. It is only through a rich curriculum and sound methods that the continuation school will ultimately succeed. However, business men and the public in general must be made aware of these things in some other than a haphazard manner. Coördinating

visits, the establishment of advisory boards, the solicitation of the active coöperation of civic clubs, must be used to "sell" the idea and to prove its worth.

Educational salesmanship.—Every one of the activities mentioned up to this point, if carried out successfully, is a phase of salesmanship. Every satisfactory adjustment made, every amicable relation set up, every little help to an employer or a pupil makes for good will and a desire to do more business on the same basis. This is a time-old and sure way of selling goods and presents nothing startling when it comes to education. But, for a new type of education which disturbs old customs and requires new adjustments, something more than this is necessary, especially where a sudden tide of disapproval may take away any chance of exercising these good old virtues. There must be active solicitation. The school must take the initiative in order that the community may do its part.

a. *Making a good start.* An excellent approach to the successful establishment of part-time schools is that used in Berkeley, Calif.¹ "Those who have watched the successful development of the part-time school in Berkeley feel that a large part of the success is due to the publicity campaign carried on for a number of weeks preceding the opening of the school. Over thirty articles were printed in the local papers. Some of these were in serial form—each article discussing a particular section of the Part-time Law. Letters, accompanied by a brief summary of the outstanding provisions of the law, were sent

¹University of California, Part-time Education Series, Bulletin No. 3, p. 10.

to various organizations in the city. The following is an excerpt from a letter sent to the Chamber of Commerce.

"The fact that you are members of the Berkeley Chamber of Commerce is proof of your interest in all that affects Berkeley's welfare. The new part-time education law which went into effect in California July 1, 1920, becomes actively operative with the opening of the school year. This law deserves the attention and support of the Berkeley Chamber of Commerce since it affects the welfare of Berkeley:

1. Several hundred youths must attend part-time classes.
2. Many members of the Chamber of Commerce have these youths employed.
3. The law adds a difficult training problem to the educational responsibilities of the School Department.
4. The provisions of the law give opportunities to learn while earning, to many young people whose education has previously been neglected.

Your coöperation is asked in spreading the right kind of information about the purpose and plan of operation of the law.

"Pamphlets, stating the 'Opportunities for Vocational and Part-time Education in Berkeley,' were mailed to every student in the intermediate and senior high schools. From a study of the census of minors the number of youths who were employed, idle, or in full-time schools was obtained.

"To all of the youths who came under the Part-time Act, as indicated by the census, to youths who had secured vacation work-permits, and to the 'drop-outs' from the intermediate schools and the high schools, the following letter was sent:

"To the Boys and Girls Concerned:

"You no doubt know that with the opening of the High School, August 16, comes also the beginning of the new part-time work, which will enroll, first of all boys and girls fourteen and fifteen years of age who are out of school, who have work permits and do not choose to go to evening schools; second, boys and girls who are sixteen years of age when the law goes into effect.

"In order to answer your questions regarding time, place, and opportunities offered through the numerous courses from which you may choose, we have planned to meet with you Thursday evening, July 1, in the High School Auditorium, at 7 P. M.

"W. W. PATTY,
"Director Vocational Education,
"Berkeley, Calif.

"To secure the coöperation of the parents, the coördinator visited the homes of the boys and girls who came under the part-time law, but who did not enroll at the opening of school. When calling at these homes, the coördinator found that she could not open the conversation by saying, 'You have doubtless read in the local papers about the part-time school.' She discovered that fully two-thirds of the parents did not read the newspapers. Ignorance of the part-time law was in many cases the cause of the lack of response. Extracts of the law printed in simple language were then distributed to these homes.

"In some homes the coördinator was not cordially received—in fact, a few mothers were very antagonistic. To many, the first suggestion of having their children return to school, was interpreted to mean that the chil-

dren must give up their present jobs and lose this means of self-support. However, when the coördinator carefully explained the provisions of the law, the parents were usually willing to coöperate with the school. The director remarked, 'The coördinator's personal visits to the home have been of inestimable value in furthering our work.'

"So far as possible visits were made to all employers of youths sixteen years of age. In securing their coöperation, the coördinator found that in many cases the employer had to be educated to a sense of his responsibility toward his minor employees.

"Reports from many cities show that one of the chief functions of the coördinator in the early stages of the work is to 'sell the idea' of part-time education to individual employers. In summarizing the methods used for marketing and popularizing part-time education we see that the most successful are: information disseminated through the press, pamphlets explaining the law and the efforts of the local school department to carry out the law, personal letters to civic organizations and to the boys and girls concerned, and personal conferences with youths, employers, and parents. The personal conference is, in most cases, the most effective means of presenting the purposes and aims of the part-time school and securing the coöperation of all concerned. The coördinator should be largely instrumental in shaping the attitude of the home and the shop, as well as of the youths, toward part-time education and should seek to secure the best possible coöperation on the part of each."

b. *Making mechanical adjustments.* These adjustments are good salesmanship in the sense that they prevent marked ill will. They convince the employer that the

continuation school will at least not demoralize industry. They are only makeshifts and should not be made unless the attempt at more positive salesmanship has failed. The employer should be imbued with the idea that it is really he who is benefiting by the existence of the school and that he should be glad to make any adjustment necessary. In most cases he is willing to do so. Moreover, in the matter of discharge it must always be remembered that if an employer decides to discontinue employing boys and girls under a certain age-limit, because he finds that he gets better service by employing older children and paying them more, one of the ultimate aims of part-time education is being accomplished. There is general accord in believing that little of ultimate value to the individual can be done under 16 years of age, and this belief is expressed in repeated efforts to move the compulsory full-time school age up to that point. Whether this will redound to the benefit of the pupil, as long as the traditional subjects are taught in the traditional way, is questionable, but the continuation school may again prove of service in indicating to the full-time school the subjects and methods which will hold the interest of the pupil. For 14 to 16 year old children the part-time school will and should to a certain extent eliminate itself in favor of the full-time school. With a part of this lower age group it may well "work itself out of a job." However, in this connection three conditions must be kept in mind: the full-time school must be ready to make drastic changes in its curriculum; the withdrawal from industry of all children below 16 will bring at least temporary hardship to many families; finally, it must be recognized that there is a type of mind that craves

activity and an adult environment, and for these part-time education may be far superior in the benefits it confers than full-time education.

c. *Civic and social organizations quick to respond.* The continuation school attempts in a practical manner to reach all of the adolescent group not in full-time school, and to do what civic and social organizations have for a long time wanted done. Therefore civic and social bodies are quick to seize upon these schools as valuable contributions to society, and are giving them moral and practical support. Visits to and from the individual and collective members of such organizations are most profitable in popularizing the schools.

d. *Printed publicity essential to a new movement.* Information must be available when asked for and must be proffered to those who lack it but are unaware of their ignorance. If this information is printed it must have all the good qualities of effective advertising without blatant and cheap appeal.

Coöperating with the advisory board.—Theoretically, and often practically, the part-time school gains tremendously from the advice and coöperation of an advisory board on which are representatives of employers, employees, and the general public. What the board advises as desirable to establish will not be criticized adversely later. Such a board will keep close to the needs of the children. It will check up any too scholastic tendency upon the part of the school administrators. On the other hand, there is always the danger that such a board will lose sight of technical administrative problems which only the trained school executive can know. However, if well-selected and tactfully handled, an advisory board

may be an extremely valuable adjunct to the school. "An advisory board should be selected with a view to preventing a monopoly of direction by any one interest, while affording representation to all, and at the same time bringing to the service of the school the intelligent advice, interest, influence, and standing of the strongest and most influential people of the locality."²

The duties of an advisory board may be stated as follows:

"To approve the subject-matter of the trade instruction to be given, and also the order in which the various subjects are presented.

"To pass upon equipment, nature and price, before it is purchased, and upon all other matters that pertain distinctly to the technique and science of the business under consideration.

"To aid in working up coöperation between the employers of labor and the school by championing the adoption of such understandings as the one indicated by the following card, which is given by Rochester firms to young people applying for positions:

"At the present time this firm is only employing workers (under 18 years of age) recommended by the Department of Public Instruction. If you desire a position we would suggest that you communicate with Raymond C. Keople, 308 Municipal Building. Hours 9 to 10 A. M., 4:30 to 5:30 P. M.

YAWMAN & ERBE MFG. Co.

"To assist in bringing about a series of trade agreements between the school and organized labor. These

²University of California, *op. cit.*, p. 38.

agreements should state in writing the instruction to be offered in the school and in the shop to workmen and apprentices employed by the contracting manufacturer.”³

4. Practical Administration of Coördination Activities

As with any other phase of school administration it is one thing to formulate a policy but quite another to assure its practical execution. First, there must be teachers who are sympathetic and tactful; second, methods and procedure must be devised; and third, teachers and methods must be brought together. The first involves the training and selection of teachers before service; the third, the training of teachers in service. The second means special devices, directions, instructions, forms, reports.

The assignment of visits.—The coördinator who asks, Whom shall I visit? is the coördinator who does not belong in a continuation school. The employer and the parents of every pupil should be visited. The difficulty is not in not knowing whom to visit but in knowing how to cover the whole field. If a coördinator cannot discriminate to the extent of discovering which pupil needs his attention first, all that is left for him to do is to visit his pupils in alphabetical order. It is not a desirable method, but is at least illustrative of an idea. The teacher should visit every pupil as far as it is possible to do so. From what has been said thus far, it is apparent that the coördinator will never be at a loss for work. To avoid unnecessary traveling, a school district has been subdivided so that each teacher may visit within a restricted area, whether the pupils are his own or not. This

³ H. B. Smith, *Establishing Industrial Schools*, pp. 79-82.

method has the serious drawback that the teacher has no first-hand knowledge of a pupil not in his class. Where the method has been made optional on the part of teachers they have not taken advantage of it, though it would serve their personal convenience. Wherever a case is brought to the attention of the principal and an immediate visit seems necessary, he will of course assign it to the pupil's teacher. If it offers serious complications, he will assign it to the most tactful teacher.

In an organization of any size a number of pupils will work in one company. If each teacher visits for his own pupils, any one employer will find himself favored by a number of different teachers, each with his own problem. Overlapping, waste of time and energy can be the only result. To avoid this, either strict supervision must be maintained to prevent overlapping, or one person must be made responsible for all the coördination.

Time allotment and reports.—Visiting should not be considered an extra activity. It must be part of the regular work of the teacher, and time must be allotted to it. If the teacher is in the class-room for four hours, then one or preferably two hours a day should be assigned to visiting, and the teacher's working day should be understood to be five or six hours. Definite reports should be required and the visiting time accounted for. The form of report should be suggestive of the purposes for which visits should be made. It should call for certain essential items of desirable and needed information and should be of such form as will make possible easy tabulation of the information secured. The result of the visit is one essential item. The report should be easy to write out and should be of such a size that it can be easily

filed. The form given in the appendix meets these requirements. The cards are filed alphabetically according to employers so that teachers may consult the file to avoid annoying employers by duplicating visits, and by the employment bureau to determine which employers may be most profitably solicited. Periodically the information regarding wages, types of visits made, success of visits, and the like, is tabulated and the results used as the need indicates.

Shop teachers as coördinators.—Most shop teachers come and should come from the trades. They are mechanics; they take pride in their equipment and the product. They have been neither vocational counselors nor coördinators. They would rather, in their first acquaintance with school work, spend their non-teaching time in the school shop—making something, or sharpening tools. Laudable as this attitude is in itself, it does not serve the primary purpose of the continuation school, which purpose can be served only when the shop-worker, turned teacher, assumes the duties of the teacher, and becomes coördinator. He has the fundamental knowledge of trades, such as the ordinary school teacher seldom has, and thus has an especial advantage in this particular activity of coördination, if he chooses to exercise it.

The attendance officer as coördinator.—The attendance officer presents a marked difficulty from the fact that while the primary purpose of his service is to get the child to school, the most effective results cannot be obtained by mere insistence and resort to the law. Yet under the stress of much work and a lack of close contact and sympathy with the child, this is the method most likely to be used. Since the officer does not get the class-room

atmosphere, has not been trained as a teacher, does not have the background of the teacher, and usually gets a much smaller salary than the teacher, he is not as a rule a good salesman. He is likely to fall back too quickly upon his position as an officer of the law. The result is unfortunate. The only way of bringing about an immediate change is to educate the attendance officer, to get him acquainted with what is going on, to make him believe in what the school is doing. Higher salaries and higher standards are more effective remedies. The ultimate solution is a continuation school so effective in its appeal that the only work relegated to the attendance officer will be the enforcement of the law in that irreducible minimum of cases in which force is and always will be necessary.

5. Some Views of the Function of the Coördinator

Owen D. Evans, formerly Assistant Director of Vocational Education, in charge of Continuation Schools in Pennsylvania, has said that the work of coördination should be carried on, not only by specially trained coördinators, but also by the teachers of part-time classes. In spite of preliminary training the prevalent lack of knowledge on the part of all teachers including part-time school teachers, as to the actual working conditions of employed minors, is a serious handicap. The only way to get this knowledge is by direct contact and investigation. A special coördinator, or several of them, is essential in a system of any size. In general, however, these coördinators are able to transmit to the classroom-teachers only facts, not impressions. Thus, the academic teacher fails to get two things: (1) the personal knowl-

edge of the individual which is so essential to sympathetic understanding, and without which, in part-time work, it is impossible to give individual instruction based on individual needs, and (2) the background of knowledge that enables the teacher to give the instruction in its proper setting and without which part-time instruction tends to fall into the rut of conventional routine. At the end of two years, when the teacher has accumulated a mass of instructional material, and has learned how to handle follow-up work, the assignment of time for follow-up work may be lessened. Since probably sixty per cent or more of all part-time schools will be in small communities where not more than one or two teachers are employed, it is obvious that a special coördinator cannot be used there. In a larger school system, Mr. Evans adds, there should be both special coördinators and a trained coördinator to direct the work of all the teachers.⁴

The concluding view, that of Miss Alltucker, is: "It would be impossible to find a person with broad enough knowledge of trades and other occupations, labor problems, work fluctuations, commercial production, and with special training in the methods of organizing industrial classes, to do the entire work of coördination for a large part-time school. In addition to these requirements of expert knowledge of many occupations and their training requirements, the coördinator must have tact and ability to meet employers, labor union officials, school directors, parents, and students. He must understand the point of view of each of these groups and help each to appreciate the point of view of the others. He should also have a capacity for estimating ability, bringing about trade

⁴University of California, *op. cit.*, p. 42.

agreements, making job specifications, and running a successful placement bureau.

"Since, then, the range of functions coming within the field of coördination in a large part-time school is so broad, the work of coördination belongs, not only to coordinators, but to every one connected with the part-time school. The division of the field among these agencies must, of course, be decided in each community; all phases of coördination must be undertaken by some of these agencies, if part-time education is to function in its broadest sense. The vital point is not the manner of distribution of duties but the certainty that some one will, through a coördination of the educational forces of home, school, and job, furnish opportunity for the development of the character and abilities of each youth of the community."

Coördination means, then, tying up the work of the school with the life of the pupil, and can best be carried on by the pupil's teacher trained to this work and working under the direction of a trained supervisor.

CHAPTER VIII

TEACHING VOCATIONAL SUBJECTS

1. Industrial Subjects.

Content.

- a. Relation to aim and method.
- b. Selection of subject-matter.
- c. Organization of subject-matter.

Method—application of job instruction sheet.

Organization of classes.

Equipment.

Snedden's comments.

2. Commercial Subjects.

Special conditions governing commercial occupations.

- a. Large numbers of children engaged in unskilled commercial jobs.
- b. Many boys leave these jobs for commercial pursuits, while girls leave to marry.
- c. Beyond general age restrictions there are no legal age-limits for commercial work.
- d. No union regulation as to age and training.

Content—relation to aim.

- a. Vocational guidance.
- b. Extension and preparatory training.

Organization of classes.

Method.

Equipment.

Federal Board comments.

3. Home-making Subjects.

Special conditions governing home-making subjects.

- a. The vocational guidance problem differs with the type of girl.
- b. Non-graduate girls do not think seriously of a permanent vocation.
- c. Many non-graduate girls gladly accept non-skilled jobs.
- d. The young girl, forced to leave school, finds it difficult to place herself in a satisfactory occupation.

e. High school girls may omit elementary home-making, but should have advanced courses.

f. Since most girls marry, home-making is important.

Content—relation to general aim.

Content—relation to specific aims.

a. "To help the girl see her own home in its most ideal light."

b. To teach the girl to cook for the family.

c. To instruct in home sewing.

d. To show how to make the hats of the women and girls in the family.

e. To train in caring for the house or the apartment.

f. To give instruction by which to promote and conserve the health of the family.

g. To show how to spend the family income wisely.

h. To instruct in the mental and moral welfare of the children as well as in the care of their bodies.

Organization of classes.

a. The basis is the "job."

b. "Jobs" must be grouped into units.

c. Technical knowledge accompanies manipulative and machine operations.

d. Each job will involve related English, arithmetic, hygiene, and civics.

e. Units must provide for a rounded course.

f. "Little mothers" receive instruction in the home.

Method.

Equipment and supplies.

A commentary on the teaching of home-making.

1. Industrial Subjects

Content.—a. *Relation to aim and method.* In the field of general education differences of opinion as to aim are much more limited than they are as to content and method. Good citizenship, for instance, is generally accepted as a commendable objective, but the teaching content and the procedure for carrying it over to the pupil are frequently disputed. In the continuation school citizenship is one of the primary aims about which opinions would differ little, but whether the good citizen is developed by centering his schooling in the occupation or by continuing the general education of the full-time school, may be open to question. If the occupation is

agreed upon as the center, the question arises as to *what* occupation shall be taught, and whether the school should be made to reproduce trade conditions or whether the class-room work should be largely informative and technical in nature. Yet the only way in which technical, trade, cultural, or any other kind of education can be made to function is through the teacher-pupil class-room or the worker-teacher-job relation. The success of a school or of a type of education is dependent upon what happens during the individual, separate, and very real situations arising in or in relation to the class-room or shop. The failure of such education is assured if after a class period there is not evident some definite accomplishment on the part of the pupils present. As much of a truism as this may be, it warrants reiteration both as a warning to the teacher and a touchstone for the administrator. This viewpoint emphasizes the importance of both content and method.

b. *Selection of subject-matter.* In discussing the organization of the school the criteria for the installation of shops and the establishment of industrial classes have been given, and for present purposes it may be assumed that such classes have been correctly determined. Under the course of study have been considered the manner of building up a course through a series of jobs and the technique of constructing the job instruction sheet. There remains the selection of subject-matter which will further the aim of the continuation school and will lend itself to treatment under the method which has been determined upon as the only feasible one in the light of the conditioning factors in the specialized type of school. Moreover, the subject-matter must be

evaluated in view of the specific teaching aims developed under the general aims. For instance, if one of the specific aims is vocational guidance, then the subject-matter of any particular lesson must possess some vocational guidance value to justify its place in the course of study. Even more conscientiously, if possible, than in the full-time school the teacher must check and recheck the outcome of lessons taught, so that the lofty general aims and practical specific aims of continuation education are realized in the class-room or shop.

c. *Organization of subject-matter.* Assuming that a boy is assigned to an auto mechanic shop because he has expressed a desire to do the work of the auto mechanic, or because the teacher thinks he is fitted for the work, or because a trial at auto mechanics seems a desirable opportunity to give him, the practical question becomes, What is the teacher going to do with him when he has him there in the auto mechanics class? Here is a boy, knowing nothing about automobiles, placed among many highly complex machines and in a class with a number of boys having extremely varying equipment as mechanics. He wants to learn how to perform certain operations, or he wants to find out whether he wants to learn those operations, or he is averse to learning those operations. The obvious solution of the problem is to give the boy a job, such a job as he would have to do if he worked in a garage or repair-shop, and incidentally to teach him the manipulations, the technical information, and the related subject-matter necessary for the most efficient performance of that job. If such jobs are graded in order of difficulty, or, to put it technically, if the progression factors are duly recognized, the result will be

that that boy, when he has completed the two or three hundred essential jobs on an automobile, will have prepared himself for the job of auto mechanic (trade preparatory training), or will have made himself more proficient on his present job (trade extension training), or will have found out whether he is adapted to the work of the auto mechanic (prevocational instruction). In the last case, of course, the ill-adapted pupil will have realized his ineptitude during the first few jobs. If the technical information and the related English, mathematics, hygiene, and civics have been thoroughly covered in connection with these jobs, the education which he has received will have assured him the realization of the aims set up for the continuation school. This related matter will be treated in separate sections. It is desired at this point to emphasize the manipulative and, to some extent, the technical phases of instruction only.

Method—Application of job instruction sheet.—Again we must think of the boy-teacher-shop relation. The teacher has in mind trying out the boy. Such testing must be done while from ten to twenty other boys are occupied in their particular assignments of work. If the try-out is to have value it must be in a situation met in life. The teacher cannot give all his time to the new pupil, for which reason he must present that situation in written form; that is, on the job instruction sheet. From time to time he must observe the boy at work, and give him supplementary oral instruction, and criticize his efforts. The instruction sheet contains the reasons for certain operations so that principles are taught in connection with the practical operations which give them effect. The prospective auto mechanic proceeds as he would

were he learning in a shop except that he has the tremendous advantage of intelligent, systematized, organized instruction in the technical aspects of the practical work. The contention for the job method in auto mechanics or any other industrial subject is that in this manner may be built up a course of study which will cover the field and at the same time utilize the best methods of learning.

One of the dangers in building up courses of study for the part-time school is that an apparently good course of study will be taken over from one school and applied in toto in another school where the situation has so many different factors that an entirely different course would be desirable. The point is that there is nothing magic in any "course." In view of the particular teacher-pupil-shop relation, the prime requisite is that the jobs done be practical and that the underlying principles and general workmanlike procedure be emphasized so that they may be applied upon any other job involving similar tools, materials, and processes.

Reduced to its simplest terms, the project is a "job," such as may be given to the pupil during any one session. If the job involves the acquirement not only of skill but of related technical knowledge, and places upon the pupil the responsibility of satisfactorily completing an assignment such as he might receive in an outside shop, the important elements of the project are included. In so far as practical, large projects covering many weeks of work are desirable. However, the short sessions, rapid turnover of pupils, variation in ability, and similar factors already discussed, make large projects difficult to supervise. The feasibility must also be considered in the light of aim, whether prevocational, trade extension, or trade

preparatory. While small projects can be adapted to all of these, large ones are probably desirable only for preparatory training.

Arguments for and against production work in any type of vocational school apply to the continuation school. While production in quantity for commercial consumption tends to impress upon pupils the importance of meeting trade standards as to time, quality, and quantity, it also easily degenerates into repetitive drill with little educational content. For the continuation school such work becomes especially difficult because of the presence in the shop of different pupils each day of the week and a resulting lack of continuity. There is also the usual objection of the unions to unfair competition. All things considered, it may be said that production work finds little place in the continuation school.

Regardless of method of instruction, efficient shop management is of prime importance in industrial teaching. The success of the job instruction sheet itself is dependent upon this phase of teaching. Some teachers nullify what is otherwise good teaching by not getting their pupils started promptly—a condition which would not be tolerated in a good shop. Mischief is rife before the pupils are engaged in profitable tasks. Other teachers fail during the dismissal period. They do not properly check up the return of tools, or they give so much time to it that discipline deteriorates. Still others lose time in recording the progress of pupils, while another type of teacher is so thoroughly convinced of the efficiency of instruction sheets that he neglects to supplement them by necessary oral comment, criticism, and correction. All these are essentials for the proper functioning of the best

possible course of study, and these are only evidences in the classroom of a businesslike procedure found in progressive business concerns that employ labor.

Organization of classes.—Flexibility of courses of study is essential to the purpose of the continuation school to aid the pupil in his daily work; that is, to give him trade extension training. Wherever the generally prescribed work does not conform to the more important immediate needs of the pupil, the teacher must devise practical jobs which will supplement the practical experience of the boy on his daily job. In other words, in extreme instances each individual pupil may have outlined for him a separate, personal course of study so prepared that his particular vocational program may be carried out effectively.

As a matter of good administration and effective correlation the various industrial activities should be organized in groups. Rodgers and Furney ¹ give the following:

BUILDING TRADES

Carpentry
Cabinet work and interior
finishing
House wiring
Painting and decorating
Plumbing
Bricklaying and masonry

METAL TRADES

Machine-shop
Sheet-metal work
Welding
Tool-making
Forging and drop-hammer
work

ELECTRICAL TRADES

Motor operation and repair
Power plant operation
Telephone work

AUTOMOBILE TRADES

Motor work
Chassis and transmission
work

¹ *Industrial Subjects in a Part-time or Continuation School.*

ELECTRICAL TRADES—*Continued*

Electrical street railway
Lighting work
Wireless work

AUTOMOBILE TRADES—*Continued*

Starting and lighting
Tire work
Ignition

PRINTING TRADES

Composition
Presswork
Photo-engraving
Electrotyping
Bookbinding

DRAFTING TRADES

Machine
Architectural
Structural
Topographical

Equipment.—School equipment for the teaching of vocational subjects is costly and must therefore, for the most part, be considered permanent. Yet in industry efficiency demands frequent changes in methods of manufacture, and consequently in machine design. The school cannot keep pace. Moreover, in some industries, paper-making for instance, the equipment is so costly that no school could hope to install it. Nor would such installation be desirable. For the continuation school, where so many pupils have daily contact with production on a commercial basis, backward methods and antiquated machinery would be especially unfortunate. The way out lies in two directions, or perhaps they are one. School equipment must consist of basic, representative, rather than of complex, highly specialized machinery. Where the latter is necessary for adequate training (and this will be principally for the older, 16-18 year group), such training should be obtained in the shops of the industry itself, while in the school should be given the related technical knowledge. For the latter no special equipment is necessary. In general, it may be said that vocational

instruction offered with a view to guidance should be given with basic equipment in the school building, while instruction given to prepare for, or to increase skill in, a specific trade, should be given in its practical phases in the commercial shop, and, in its theoretical or technical phases, in the school class-room. In this connection it must be noted that the extent to which equipment is necessary varies considerably with the trade, so that the distribution of time between school and shop will depend upon the circumstances.

Where the community is small, one means of meeting the need for more than one type of vocational work is the composite shop. For instance, to take care of the building, metal, and electrical trades there are installed in the one shop a few of the most necessary tools and some of the fundamental equipment of each of these trades. The building up of the course of study is effected in precisely the same way as in the specialized shop, except in that the complexity of the situation becomes more marked for the teacher, who must familiarize himself with so much more of the occupational field. Obviously, the job instruction sheet is the only means through which the teacher can possibly handle the work in the composite shop found necessary in small continuation schools.

Snedden's comments.—In connection with the teaching of the industrial subjects Snedden² makes certain pertinent suggestions:

"Vocational education given in the continuation school may be either *basic* or *extension*, according as it is designed to teach a new occupation or to advance the learner in the occupation he is already following.

²David Snedden, *Vocational Education*, p. 214.

"Opportunities to give genuine basic vocational education on a continuation school basis between the years of 14 and 16 will probably be found to be few. Between the ages of 16 and 18 better results may possibly be had in manufacturing and commercial centers, especially if attendance of from 8 to 15 hours per week can be assured.

"Opportunities to give *extension* vocational education at any age will obviously depend upon the wage-earning employments being followed by the young workers. In such fields of work as agriculture, salesmanship, office work, and the handicrafts, the opportunities should be good. In the factory callings where the young workers serve chiefly as operative specialists or helpers, the opportunities are probably not so good (although the whole matter is much in need of investigation).

"In general, it is not to be expected that the continuation school by itself can solve the problems of vocational education for children from 14 to 16 years of age. But it can do much, if properly handled, to develop and improve their cultural and civic education, especially because its pupils are, during part of their time, receiving the very real and helpful education of contact with the actualities of life in wage-earning work.

"The *ideal* plan for the continuation school designed for workers in highly organized fields of production—factories, department stores, etc.—is such as will permit the workers to give *half* of adult working time to wage-earning employment—thereby making double shifts of young workers possible. Juvenile workers could be debarred from working more than five hours per day, or thirty hours a week; and, concurrently, be required to

attend school at least three hours a day, or fifteen hours a week.

"Continuation school education can be made valuable only by providing *specially adjusted courses of study and specially selected and trained teachers*. If we do not provide these, the time spent in schools by pupils will be a time of profitless boredom or of holiday mischief-making, according to the severity of the disciplinary methods employed.

"By specially adjusted courses of study, in general or vocational education, is meant, in part, *short unit courses*, focusing upon objectives of achievement easily comprehensible to the pupil and capable of being consciously related by him to his needs, deficiencies, and interest; and, in part, adapted courses, permitting such methods of treatment as will relate the materials and ends to the learner's outside experience, vocational or non-vocational."

2. Commercial Subjects

Special conditions governing commercial occupations.—Survey and analysis of junior occupations with reference to those engaged in commercial work, reveal conditions bearing directly upon the possibilities of training:

a. Large numbers of children are engaged in unskilled commercial jobs requiring little native intelligence, but having definite promotional possibilities for those who have good or superior native intelligence and who take advantage of training opportunities. Such jobs as office-boy, errand-boy, filing-clerk, switchboard operator, and 5-and-10-cent store clerk are in this category.

b. Of those who enter commercial work, many boys leave for industrial pursuits when they outgrow their earlier jobs, while a large proportion of the girls leave to marry. The result is a large turnover.

c. Beyond the general age restrictions there are usually no legal age limits for commercial work. Thus many children gravitate to this field when they find themselves barred from more dangerous but better paying jobs.

d. Union regulations as to age and training do not operate for commercial work. Hence the field is an open one.

Content—relation to aim.—In some respects these conditions make the work of the school easier, in others more difficult.

a. *Vocational guidance.* Many boys and girls are in close contact with commercial work, the environment is comparatively easy to reproduce, and the equipment is easy to obtain. Promotional possibilities can be readily indicated. The abilities required—English, arithmetic, stenography, typing—all except selling ability, perhaps, can be tested with a fair degree of accuracy. The very numbers involved, however, make it a difficult task to convince many children that they are not in commercial work for the remainder of their lives, that they are not adapted to it. Yet such prognosis can be made with more assurance here (except as to executive positions) than in most other types of activity.

b. *Extension and preparatory training.* The boy or the girl in a juvenile commercial position may be taught to improve the quality of work being done at the time (extension training) or to prepare for the next higher or the ultimate job. Whether, in an individual case, the

school should have an eye to the present or the future is sometimes difficult to decide. However, if the tentative decision resulting from vocational guidance activities is that the future is a commercial one, extension training, supplemented by close coördination with the job, should be given. This should be followed by preparatory training. If, however, the pupil is headed for another type of permanent employment, it may be well either to give him instruction in the latter or temporarily to improve his service in the present employment. In general, then, extension training should always be given, while preparatory training may be.

Organization of classes.—Preparing for “business life” or “going into business” means nothing for the school. The differences in degree and quality of ability necessary for the various types of work in the commercial field are as great as that in the industrial, even disregarding juvenile employment. It is a far cry from clerk in a grocery store to manager of a million-dollar corporation. Yet the school must provide for such variation and do it through specific training. Typewriting alone will not suffice. Typewriting may not benefit one in ten. The general phases of office work must be considered as well, stenography, bookkeeping, salesmanship, all types of standard office practice, with specific application to the individual needs of the pupil.

Even more fertile in suggestion than types of instruction are the jobs themselves. Teaching organized about a specific job is vital and definite, but the job must be one in which the pupil is interested and which lies along the line of possible promotion. As indicated in the chapter on Organization, in any particular community these

jobs will be chosen as the result of an occupational survey of the town. The required knowledge and the related subject matter for twenty-seven different occupations are given in the pamphlet, *Survey of Junior Commercial Occupations*, by the Federal Board for Vocational Education. There are in general open to workers under eighteen years of age:

Group I

Clerical Type

1. General clerk
2. Shipping clerk
3. Receiving clerk
4. Stock clerk
5. File clerk
6. Mail clerk

Group II

Office Machine Operating

7. Typist
8. Billing clerk
9. Duplicating machine operator and addressograph machine operator
10. Calculating machine operator

Group III

Office Positions—Miscellaneous

11. Messenger office boy
12. Collector

Group IV

Office Positions—Recording

13. Assistant bookkeeper

14. Entry clerk
15. Ledger clerk
16. Cost clerk
17. Bookkeeping machine operator
18. Time-keeper
19. Statement clerk

Group V

Stenographic

20. Stenographer
21. Dictating machine operator

Group VI

Store Positions, Retail Selling and Store Service

22. Sales person (junior)
23. Messengers, including floor boys and girls, minor office boys and girls, mail clerks, special deliveries, etc., millinery manufacturing, alteration room shoppers
24. General clerical
25. Bundle wrappers, cashiers, examiners
26. Stock, including stock clericals
27. Miscellaneous

Method.—Private commercial schools, or “business colleges,” for some time have been compelled to meet the problem of rapid turnover and short unit courses. Students have entered at any time of the year and have desired preparation for “business” in the shortest possible time. Whatever may have been the efficiency of such institutions or the practicality of their aims, the methods developed have been closely adapted to continuation

school conditions. Typewriting instruction lesson sheets (sometimes called "budgets") and bookkeeping problems have been worked out to the point where they are almost self-instructing. Approached independently and from a different angle, they approximate the job instruction sheet developed for industrial subjects. Since the type of pupil choosing commercial work is usually better able to read and understand the printed word the sheets are extremely effective. Even for salesmanship, where the appeal is in a degree oral, the instruction sheet may be used for such technical phases as the qualities of stock, the use of display advertising, or the laying out of a selling campaign.

Equipment.—The efficiency of the methods used depends in part upon the adequacy of the equipment used. The commercial room will have in it every type of equipment to be found in a well-organized office—typewriters, calculating-machines, dictaphone, mimeograph, mimeoscope, filing-cabinets, and a telephone switchboard. Some of these may well be used in carrying on the office work of the school and thus serve a double purpose. In fact good practice under production conditions can be provided for typewriting, mimeographing, filing and for switchboard operating, the last through the installation of a practical interior telephone system for the use of the school.

Federal Board comments.—The Federal Board's conclusions, with which the writer agrees, are as follows:

- a. Since a great number of boys and girls are at work in commercial occupations, provision must be made for training in these positions and for promotion.
- b. "Business training," used in a vocational sense, has

no definite meaning except when used (a) in connection with a definite group of people, and (b) in reference to known commercial vocations.

c. General "business education" should give way to definite vocational training suited to the requirements of junior office and store workers. In other words, training for vocations not open to boys and girls of continuation school age should not be given at the expense of training that will function in their present employments. This does not conflict with the conclusion under f below. Neither general nor specific training should exclude the other.

d. Continuation school commercial education should be based upon business employments represented by continuation school pupils. It should be immediately useful, and at the same time it should be helpful in preparing the young people for promotion.

e. Promotion is more a matter of the individual and the quality of his work than it is of the particular kind of position he holds. Therefore it is of the utmost importance that all boys and girls be prepared for the kind of work they can do best.

f. Specific vocational training should not be given to the exclusion of general and business education, since future advancement as well as present employment must always be kept in mind when setting up courses of business training.

g. Only "extension" training for those already employed in these lines should be attempted in bookkeeping, stenography, typewriting, and salesmanship in the continuation school. (In the experience of the writer this is true of stenography, but not of other subjects.)

h. Young people should be fired with ambition to succeed in a worthy sense. Employers should establish a definite promotion policy if they would hold boys and girls in their employment while these employees are developing into valuable assistants and executives. Instruction in what may be called "vocational knowledge" should form a part of every continuation school business course. Wise choice of future vocations will be promoted thereby.

3. Home-making Subjects

Special conditions governing home-making occupations.—Vocational guidance and training of the girl are both simpler and more difficult than they are for the boy: simpler in the sense that the number of adult occupational openings in which training for promotional possibilities is essential is much smaller than with boys; and more difficult in the sense that the narrower field of opportunity diminishes the possibility of the full development of the girl. To make clear this situation, some of the conditioning factors in the continuation school work may be recalled.

a. *The vocational guidance problem differs with the type of girl.* Opportunities for the intelligent, ambitious, and well-trained girl are growing greater every day, so that vocational guidance in the colleges and high schools becomes ever more complex. For the girl who leaves elementary school without the possibility of entering high school, or later leaves high school through pressure of economic circumstances and then enters continuation school, the problem is somewhat similar. The possibilities are varied, and guidance into the most congenial kind

of work requires a careful study of vocations in industry, business, and the professions. On the other hand, opportunities for the girl who discontinues her education through dislike for schooling are so limited that she is more likely than not to fall into the group who fit best into those occupations where the line of advancement is a short one. Whether this be a happy or desirable state of affairs is debatable, but the fact that it exists must be recognized.

b. *Non-graduate girls do not think seriously of a permanent vocation.* Whatever may be predicted of the desirability of a career for every woman, the fact is that this second group of non-graduate girls do not think seriously about a permanent vocation or life calling in business or industry because they have in mind as an ultimate career only the thought of marriage. Their jobs are a stop-gap between the full-time school and their own homes. Work is offered to the employer merely as a return for the weekly wages that are necessary for "boarders" at home and for clothes. The girl will shift from packing hair-nets to feeding a paper box machine and with no other thought than of the amount of wages concerned. This is, of course, not so true of the graduate group, but whatever may be the seriousness of a girl's purpose the fact is that in nine out of ten cases she will ultimately marry and require the knowledge and skill of a home-maker.

c. *Many non-graduate girls gladly accept non-skilled jobs.* Among non-graduates possessing varying degrees of intelligence, there are many girls who are quite content to accept a job requiring no great exercise of in-

genuity or making no demands upon their sense of responsibility. Even the urgency of marriage does not seem to influence this attitude. If they do express a like or a dislike for a skilled or semi-skilled trade, there is every likelihood that such choice rests upon the basis of friendship for another girl in the same class or shop, or the location of the industry, but certainly not upon the basis of the training value or the promotional possibility. With the noticeably higher intelligence of graduate girls and the correspondingly improved social environment enjoyed by them, there appears a desire for occupational success in itself. However, this motive in no measure operates as it does with boys.

d. *The young girl, forced to leave school, finds it difficult to place herself in industry.* Often the girl is compelled to leave the full-time school at 14 or 15 because the little money she can earn is needed at home. To a certain extent, as with the boy, she finds the more desirable jobs open only to the girl who has reached the sixteenth year. While this fact does not in itself preclude vocational guidance, unfortunately it is more than likely to reinforce the other circumstances which operate to keep the girl from understanding and appreciating her place in industry.

e. *High school girls should omit elementary home-making but should have advanced courses.* Elementary school graduates will, in progressive communities, have had some home-making instruction, and, for the most part, they will be more capable of profiting by vocational instruction, especially of the commercial type. For these home-making instruction need not be prescribed. Ad-

vanced courses, however, are desirable, and should be given, if not in conjunction with vocational courses, then in short units.

f. *Since most girls marry, home-making is important.* Summarizing, these five points are simply continuation school phases of the sociological fact that most women marry, that most of those who marry quit their jobs at least temporarily, and that their vocation then becomes home-making.

Content—relation to general aim.—It should be emphasized that for the girl as for the boy the continuation school should be an opportunity school, and that every girl should be given a chance to develop the best that is in her, but the fact remains that experience clearly indicates a future narrow field for many girls of the continuation school group. It remains for the school to develop the finest possibilities in this field, since for every girl it will supply either a vocation or an avocation. Whether the girl is destined for the highest place in a profession or will never work in any other place than the home it is safe to say that a course in home-making will be more valuable than a course in any one vocational subject. This principle may be carried to the extent of requiring every girl who enters the continuation school under 16 years of age to take such a course. In practice it seems the best policy to do this, excepting from the rule such girls as, through special aptitude or opportunity, have made a definite, valid choice of an occupation or have obtained a position where the chances of success are great. Girls who have had an acceptable home-making training may also be exempted. In these cases preparatory or extension training are the desirable assign-

ments. Another aspect of this policy is the fact that the common skilled industries in which women engage have enough similarity to home-making activities to enable the teacher to use the latter for vocational guidance purposes. Work on clothing in the home necessarily involves a great many factors such as arise in commercial production, so that around the instruction the teacher may weave sufficient information about the needle trades to enable the girl to decide whether she wishes to enter the industry. Moreover, the mechanical and artistic aptitudes are enough alike to enable the teacher to determine through observation whether the girl is likely to succeed in the commercial clothing industries. There is sufficient material in those vocations specializing in food, clothing, and shelter to liberalize the girl's appreciation of her environment, and, by association, to inform her of the work of the world which specializes in materials for the home on a production basis.

If bread and butter and hats and shoes and four walls and a roof were the controlling factors in the happy home, there would be a very high percentage of happy homes in the world. But we know that there are happy homes where material resources are meager and there are wretchedly unhappy homes where there is abundance. Human relations are factors as well as material provisions, and even where the material exists there is the human control which provides for its utilization to the best advantage. Conceived in its broadest aspects, then, the teaching of home-making subjects to all girls is justified because of its reflex effect upon all human experience of both men and women. Whatever of leisure time is spent in the home should be spent in happy leisure, and as a

relief from the heavy toil of the outside world, and such leisure is as necessary as work itself. An adequate home-making course will teach the means of arriving at this happy condition through teaching an understanding of the home itself. The monotony of the girl's job (a monotony which she often cannot hope and may not wish to escape) is in itself another and a sufficient reason for very definite teaching in home-making.

Content—relation to specific aims.—Home-making is an all-inclusive term embracing all those phases of life not directly concerned with direct training for manipulative skill and technical efficiency in industry. It lends itself to considerable division and subdivision. For practical purposes, however, the following aims may be suggested for the continuation school:

a. *"To help the girl see her own home in its most ideal light."* Snedden continues: "All over southern France, we read, the war-dislocated women will take even one room, a bed, a trunk, and a little stove and will make a nest, a home, a haven, a foyer, for frightened, tired, and sleepy children, a place to which the lonesome hard-driven man comes back as to the center of existence for rest, the supreme recreative activities, and social uplift. Only the woman rich in home-making instincts, customs, and perhaps training, can make the real home. Can we not, by readings, pictures, discussions, model apartments or houses, help to see the home as the little central power plant or cell whence radiates much of the social energy that makes the world go well?"³

b. *To teach the girl to cook for the family.* In the earliest courses home-making was narrowly conceived as

³ Snedden, *Vocational Education*, p. 270.

instruction in cooking. While the time consumed in cooking and its related activities may be considerable and its performance is a prime necessity, it by no means constitutes all of home-making. Involved in this problem of food are the budgeting of food expenses, the selection of food on the basis of the balanced diet and with reference to the age and health of the persons consuming it, the preparation of food, the serving of food, the selection and care of utensils and dishes, and the entertainment of guests.

c. *To instruct in home sewing.* While the purchase of ready-made clothing may be more economical ultimately than the making of clothing at home because of the element of time required, a minimum at least of mending and "making over" is essential to the efficient and economical conduct of the home. Such instruction will include the study of textiles as to color and grade of material, so that selection may be based upon appropriateness.

d. *To show how to make the hats of the women and girls in the family.* The comment on sewing applies equally well here.

e. *To train in caring for the house or the apartment.* Cleaning, sweeping, polishing, scrubbing, furnishing, arranging, decorating, and the like are operations which consume too much of the energy and time of the average home-maker. Civilization is slow to economize in these respects, but as long as these tasks remain to be done, and, for the most part, without assistance, the women must be taught to perform them as efficiently and economically as possible. In so far as men have been thoughtful and ingenious enough to provide them, the

girl should be taught to use labor-saving devices and inventions and, incidentally, to clamor for more. The arrangement of the living conditions will be made to provide not only for the physical comforts of the family but for their moral and physical health, their wholesome pleasures, and their social improvement.

f. *To give instruction by which to promote and conserve the health of the family.* This aim obviously overlaps all others.

g. *To show how to spend the family income wisely.* Methods of buying, methods of paying, a knowledge of the market and of raw materials, and the advantage of buying in quantity are all vital factors in efficient home-making.

h. *To instruct in promoting the mental and moral welfare of the children as well as the care of their bodies.* If the continuation school can make the girl appreciative of the importance of this aspect of life at a time when she is approaching the period of full responsibility, its existence and that of its home-making course will be fully justified.

Organization of classes.—As with any other type of work, the practical organization will of course depend upon the number of girls in the school, the differences in their educational and occupational experience, the types of homes from which they come, their previous experience in home-making, and other like factors. Certain fundamentals, however, should be kept in mind.

a. *The basis is the "job."* As with any other subject in the continuation school, the course of study should be built up on the basis of practical "jobs" or "projects" to be performed by the pupils.

b. *"Jobs" must be grouped into units.* These units center about the aims set forth above. Units on food for the family, clothing and hats for the family, furnishing of the home, keeping the home clean, health of the family, budgeting the family income, and the like will be given to the girl. The specific jobs within any unit will be given to the girl. The specific jobs within any unit will be determined by circumstances. The jobs in the clothing unit may range from the simple mending of a garment to the entire making of a street costume, and must have a practical value for some member of the family who is to wear it.

c. *Technical knowledge accompanies manipulative and machine operations.* Along with the manipulative and machine operations will be taught the technical knowledge necessary for an understanding of the process. In the clothing lessons the girl will learn something of the wearing and appearing qualities of textiles, of the mechanical features of the sewing-machine, and of the principles of dress design.

d. *Each job will involve related English, arithmetic, hygiene, and civics.* The making of a dress, for instance, requires the buying of material, and therefore the use of figures. This elementary arithmetic should be taught in connection with the job. Such teaching, because of its very practical nature, should utilize the best methods incident to effective teaching.

e. *Units must provide for a rounded course.* In a large school it may well be that the various phases of home-making will be taught by specialists in those lines, although on this point there is some difference of opinion. Where this is done, various units will be of the same

number of jobs, so that girls can be transferred from class to class as they complete each unit. The manipulative work may be taught by one teacher and the related subject-matter by another teacher. The particular form of organization is unimportant except that it make use of the outstanding talents of the teacher.

f. *"Little mothers" receive instruction in the home.* In large communities there occurs among the poorer families the tragedy of a mother's death, with the result that upon an older daughter falls the care of three or four children under school age. No other relative lives near enough or is interested enough to take care of them while the sister spends four hours in continuation school. The problem is solved through visits by a home-making teacher who gives the girl such instruction in the girl's own home as will enable her to meet efficiently the responsibility which has fallen upon her. This is costly but is a tremendous boon to the girl. The community owes it to her. Moreover, the objectives of the continuation school are emphasized and justified.

Method.—There are no essential differences between effective teaching method in a machine shop and in a model apartment. In each case there are jobs to be done, different jobs by different pupils. In each case the diversity of the work can be handled by the method of the job instruction sheet. The girl can be set to work cleaning an ice-box, sweeping the floor, or dusting the furniture, by handing her carefully analyzed written instructions. Not only is this method of teaching economical but it is similar to the method of learning home-making in life, unless the girl is to continue her home-making education by the mouth-to-mouth method of the old-

fashioned housewife. The method contributes mightily to good order and morale where a group of ten, fifteen, or twenty girls are required to continue busily at work, each doing something different. One qualification to this statement is necessary. Where the teaching of cooking requires the ordering of quantities of food, the practical management of the school kitchen usually necessitates a class lesson, the same dish being cooked by all the girls. But even here the instructions should be confined by no means to the words of the teacher, but should be given to the girls on individual instruction sheets. The lessons can be so planned that the order in which they are taught is immaterial.

Equipment and supplies.—The objectives and methods set forth in the foregoing imply housing, equipment, and supplies similar to those in the homes of the girls themselves, or rather to the homes in which they may reasonably aspire to live. In home-owning communities, instruction will be given in a house purchased for the purpose, while in a large city an apartment in a private building will be hired, or one will be constructed within the school building. One large room may be utilized by erecting movable partitions, or the furniture may be arranged with the position of the partitions indicated by lines. However, such a device is no more than a makeshift and should be recognized as such. Essential for teaching the care of the home are a kitchen, dining-room, living-room, clothing-room, bedroom, and bath-room. Where no other room is available, the living-room may be used for work on clothing. In large schools separate rooms should be available for sewing, for millinery, and for special group cooking, and for the teaching of the

related subjects. The laboratory kitchen is desirable when it is arranged to accommodate groups of four girls.

A commentary on the teaching of home-making.—The work of the home may be irksome or delightful to the continuation school girl. If she has had to take an active part in the care of the home she may have developed a marked dislike for it. Every job may be, for her, a task. On the other hand, the girl who has been entirely relieved of such duties may find in home activities a pronounced interest and a diverting novelty. The girl also who has disliked housework at home, because there was no method or knowledge or system or because of the miserable household arrangements, may come to like home-making and desire it and apply its lessons to the home when she learns how in the model school apartment or house. To which end, everything done in the continuation school home-making course should be such as can be applied in the particular type of home from which the girls come. This means that the home-making course in a continuation school in one section of a city or in one town in a state will be different from that in another section or in another town much better or much worse situated economically. If the subject is taught in the spirit of the foregoing discussion, the motivation will be so strong that girls will be eager to do in school what they would ordinarily shun at home. One function of a home-making course, in the continuation school or any other type of school, is to make pleasant and desirable, either for its immediate or ultimate use, the work of the home. This is being done daily by skilful, sympathetic teachers in those continuation schools which have caught the spirit of the work.

CHAPTER IX

TEACHING RELATED SUBJECTS

1. Some General Principles.

Basis for selection of related subjects—as exemplified by arithmetic.

- a.* Material drawn from the pupil's daily life.
- b.* Material selected for its vocational guidance value.
- c.* Material selected for its contribution to vocational intelligence.

General methods.

2. Arithmetic.

Traditional reasons for teaching arithmetic.

- a.* The practical value.
- b.* The disciplinary value.
 1. Ethical.
 2. Esthetic.
 3. Setting a higher standard in other work.
 4. Scientific training.
 5. Concentration.

Modern practical objectives in teaching arithmetic.

- a.* Based on the psychology of number.
- b.* Incidental disciplinary value.
- c.* Prime desiderata.
 1. Ability to work accurately.
 2. Ability to work with reasonable rapidity.
 3. Ability to work with interest.
 4. Ability in applying arithmetic to the ordinary affairs of life.

Method—class lessons and individual teaching.

Class lessons—plan and method.

- a.* Selection of topic.
- b.* Aim.
- c.* Approach.
- d.* Development.
- e.* Drill.
- f.* Test.

Individual lessons—plan and method.

Devices in teaching.

- a. Multiple sense appeal.
- b. The pupils must see concrete objects.
- c. Drill on fundamentals.
- d. Dangerous practices.
- e. Checking results.
- f. Evils to avoid.
- g. Give periodic and incidental reviews.
- h. Make use of the eye.
- i. The text-book.
- j. Accuracy of speech.

3. Trade Drawing.

Reasons for teaching drawing.

Method of teaching.

4. English.

Reasons for teaching English—the three phases.

- a. Talking.
- b. Reading.
- c. Writing.

Talking.

- a. Subject-matter.
- b. Method.

Reading.

- a. Subject-matter.
- b. Method.

Writing.

General unrelated lessons in English.

5. Civics.

Reasons for teaching civics.

Selection of subject-matter.

Methods.

- a. Counseling.
- b. Affecting the pupil's participation in life.
- c. Bringing life and people into the school.
- d. Stimulating extra-school activities.
- e. Giving instructions.

"Citizenship" conceived broadly.

6. Hygiene.

Reasons for teaching hygiene.

Physical standards for working children—Children's Bureau.

- a. The age minimum for entrance into industry.
- b. Physical minimum for entrance into industry.
- c. Physical examinations for children entering industry.
- d. Reëxaminations for children changing occupations.
- e. Periodical reëxaminations for all working children.

- f.* Centralized control of methods of examination.
- g.* Desirability of physical examinations of children during school and preschool period.
- h.* Need of study by local administrative and medical officers of occupations in which children are employed and of their effect upon health.
- i.* Need of authoritative scientific investigation.

Growth and development of young workers.

The continuation school as a focus of physical welfare activities.

Selection of subject-matter.

- a.* Personal hygiene.
- b.* Industrial hygiene.
- c.* Public hygiene.
- d.* Social hygiene.

Methods.

Adequate results require vigilance, persistence, and insistence.

7. Economics.

Reasons for teaching economics.

- a.* The young worker an economic man or woman.
- b.* The young worker needs understanding of his new environment.
- c.* Vocational guidance is modified by economic considerations.
- d.* The subjects of the curriculum have economic phases.
- e.* Economics is concerned with "earning a living."

Selection of subject-matter.

- a.* To be taught incidentally.
- b.* Economics not subject-matter but part of life.

Methods.

- a.* Viewed historically.
- b.* The pupil's background must be used.
- c.* Lecturing must be avoided.

1. Some General Principles

Basis for selection of related subjects—as exemplified by arithmetic.—In discussing the course of study and the content of vocational subjects there has appeared the need of giving related technical information and of providing training in citizenship. Such related information is usually grouped under the headings arithmetic, drawing, English, hygiene, and economics (or social science). Civics provides instruction and training in citizenship. The distinction between related and unrelated

subjects is not sharply drawn. Civics is sometimes related to the vocational work; some phases of all the other subjects are not related. The basis for the selection of topics from these fields may be best illustrated by arithmetic.

In these days of pedagogical research and scientific curiosity along lines of the persistence of certain subjects in the school curriculum the one subject that has received full share of criticism is arithmetic. While it has generally been conceded that a certain amount of number work is necessary for efficient living on the part of the average member of an organized community, there has been considerable difference of opinion as to just what and how much number work should be known. In the continuation school the problem has to be approached not from the standpoint of any existing courses of study but from the standpoint of the accepted aims of the continuation school. Those aims are, briefly, vocational guidance, preparatory and trade extension training, citizenship. The arithmetic, which is one of the four general subjects specifically required by law in some states, must be such as will assist in determining the pupil's place in the occupational world, will make him more proficient when he has found that place, and will assist him in performing his duties as an American citizen. If arithmetic does not function in these respects it does not function at all in so far as the present standards of the continuation school are concerned. This didactic statement will be considered later in connection with a study of the disciplinary value of arithmetic. For the time being, attention may well be given to the daily life of the pupil in its relation to the number situations which arise.

a. *Material drawn from the pupil's daily life.* The pupil arises in the morning (ability to tell time, standard or daylight-saving time); takes the train to work (rail-road time-tables, running-time of trains); pays his fare and counts change (mileage rates, the financial problem in municipal ownership); is sent out by his employer to mail parcels (postal weights and rates); receives his wages (weekly wage, piece rates, payrolls, advantages of remaining in school and consequently receiving a higher wage, value of group insurance, regular rises, seasonal trades); puts part of his wages in the bank (savings-banks and postal savings, percentage); sends money to relatives in Europe (foreign money, United States equivalents in simple terms, rates of exchange, cost of transfer); gives part of his wages to his mother (budgets, personal accounts, rents, reading gas and electric meters and calculating the cost, bills and receipts, life insurance, accident and health insurance); goes to a moving-picture show (cost of amusement, war tax); borrows money (rate of interest, notes); gets discounts (percentage); goes to store (reckons cost mentally).

These are the situations that arise in the lives of both boys and girls. In so far as they are met wisely, efficiently, and accurately, the pupil is a good citizen in that respect. While laudable attempts are made in the elementary and high schools to meet these situations, the continuation school has the advantage that it meets them concurrently with the experience of the pupil. This school does not have to create an artificial interest in the pupil by appealing to future needs. They already exist. Of course, all education is forward-looking, and no problem is left without at least a glimpse into what the pupil

will need as an adult, but even here the future is a matter of degree rather than quality and therefore much easier to visualize and emotionalize than if it involved an experience entirely foreign to the boy or girl. So here is one type of problem, the solution of which is an essential need of the continuation school pupil.

b. *Material selected for its vocational guidance value.* As with every other subject in the curriculum, arithmetic must not be allowed to become an end in itself. It has value only as a means for giving the pupils a certain kind of efficiency or for discovering a lack of efficiency. Arithmetic becomes important as an indication of specific ability to follow certain occupations. The boy who aspires to be a bookkeeper, engineer, or contractor must have an aptitude for handling figures. If he has no such aptitude, it is the business of the school to guide him away from sure failure; if he has ability in number work to a marked degree, the school must lead him into those occupations in which his talent will be of greatest service.

c. *Material selected for its contribution to vocational intelligence.* When through a system of trial and error, and of elimination, the bent of the pupil is finally discovered, the continuation school must get the pupil into the job for which he is fitted or prepare him for the day when he will be old enough to take it. The number work involved in that job should be taught by the continuation school for the purpose of increasing the young worker's vocational intelligence. Whether it is called prevocational training or trade extension, matters little. The practical consideration is, however, that instead of the arithmetic course consisting of a series of set lessons for every pupil, every individual group of pupils in each of

the vocational classes will have a series of lessons especially related to the type of vocational work it is doing. Moreover, in each of these groups, where pupils are doing various types of work or are at various stages in the particular vocation, the arithmetic will again be differentiated. There will not be one course in arithmetic but many courses in arithmetic, as many, theoretically, as there are pupils in the school, and practically as many as there are groups so homogeneous as to make it possible for the teacher to reach as many pupils through the class lesson as through individual teaching. If it is possible for each pupil to do the particular arithmetic related to the particular job he is doing in the vocational room, this is the arithmetic he will be taught. The possibility of such refined specialization is dependent upon the size of the class and upon the ability of the teacher to plan the work, to coöperate with the vocational teacher, and to organize the instruction in such manner that every pupil can be kept busy. At the same time the possibility of checking up such varied activities must not be lost.

General methods.—The method of teaching may be formulated as follows:

a. The related subjects should be taught wherever possible in connection with a practical job being done in the vocational room. The subject matter is to be drawn from the demands of such job.

b. Since the vocational work is for the most part individual, the pupils in any one class having progressed independently, the related work will for the most part be individual, and pupils will work at different problems.

c. Wherever the related subject-matter is exhausted before the job in the shop is complete, the teacher will

present lessons of a general nature related to the everyday life of the average human being.

d. Because of the important rôle played by school morale and the play of mind upon mind, it is essential that some of the subject-matter be presented in class lessons. Since hygiene and civics are in but few cases related to special jobs, they may be taught as class lessons. In fact, the nature of the material in these subjects is such that class discussion and the exchange of experiences are highly conducive to learning. The assembly period, where an even larger group is brought together, may be used from time to time for these subjects.

e. In laying out plans for teaching the related subjects every precaution must be used to release one's mind from the temptation to fall back upon content and methods already hallowed by tradition in the full-time school. Each lesson must be tested by the touchstone of reality. Teaching must be based upon good pedagogy rather than upon tradition and past performance.

In so far as these principles have been emphasized in the teaching of arithmetic and apply to the teaching of the other related subjects, they will not be discussed again.

In isolating such subjects as arithmetic or English for the discussion of content and method, considerable danger lies in the fact that too great emphasis may be placed upon technique rather than upon the controlling job in the vocational room. Therefore, it is necessary at this point to stress, and from time to time to reiterate, the practical nature of these subjects, and especially the fact that they are *related* subjects. When the available *related* matter is exhausted, then general lessons take

their place. This general matter is in itself related to life, the common life of all citizens apart from their vocations. These general lessons must not be substituted, however, until the field of individual teaching and related jobs has been thoroughly exhausted.

2. Arithmetic

Traditional reasons for teaching arithmetic.—The preceding exposition of arithmetic teaching in the continuation school is readily susceptible to the criticism that it is wholly and unreservedly utilitarian. Thus will be brought down upon the continuation school the criticism, justifiable or not, that the aim of the whole school is purely utilitarian. In connection with the arithmetic as part of the continuation school course, light will be thrown upon the problem of aims by a brief survey of the traditional reasons for teaching arithmetic.

a. *The practical value.* Historically speaking, arithmetic has always been taught in the first instance for its practical value. Any other values that attach to it became conscious in the minds of educators only when the original practical value had been lost in whole or part. Arithmetic was needed by tradesmen, and so it was taught among the Arabs and the Assyrians extensively. Among the Jews, with the Pentateuch, it formed the whole curriculum from the sixth to the tenth year. In the cloisters it was used to calculate the date of Easter. To-day it is taught in engineering schools and in commercial schools because it is one of the tools of the trade.

b. *The disciplinary value.* From time to time various values and virtues have been ascribed to mathematical learning. Their validity when judged scientifically may

be questioned, but they are important because they have been seriously considered in the making of curricula. Since many part-time teachers for some time at least will be drawn from the ranks of teachers trained for the elementary and the high schools, where the claims for disciplinary values have been overemphasized, it is necessary to give attention to some of the phases of mental discipline, and the following values that have been claimed for it:

1. **Ethical.** It is difficult to prove that it functions in ethical values. Whether the realization that, in number relations, answers must be exact and a standard of perfection established, has any reflex effect upon ideals of perfection in human relations, has been open to serious question and generally doubted.

2. **Esthetic.** Through rhythm it has been contended but not shown that we are made more appreciative of the beautiful by a study of mathematics.

3. **Setting a higher standard in other work.** It is held that contact with exact and provable facts makes a similar high standard the goal in other types of work. Just what possibilities of carry-over there are, is questionable, and is by best authorities given little or no weight.

4. **Scientific training.** It is not generally conceded in these days that mental processes used in one science are carried over into other fields of interest, even though there be the possibility, with resulting value, that a mental attitude may develop a more scientific method of attacking all problems in all fields of knowledge.

5. **Concentration.** Unquestionably mathematical reasoning requires close application and an ability to keep various data in mind. Again, it is well known that the

same mind that will concentrate upon mathematics will scatter deplorably on the common affairs of life, while the mind that will concentrate utterly on the care of a household may have no comprehension whatsoever of the beauties of adding two and two.

Modern practical objectives in teaching arithmetic.—The traditional reasons have been surveyed so that a practical consideration of arithmetic in the continuation schools might not be hampered by the intrusion of principles which have been discredited. It has been said that arithmetic was taught in the beginning *for its utilitarian value*. This is true of other subjects in the traditional curriculum. It is true of Latin, and it threatens to become true of the latest language in the curriculum, Spanish. The disciplinary value attached to arithmetic teaching was certainly an afterthought on the part of the pedagogues—the psychological result of the attempt to justify tradition and also the result of the cogitations of the philosophers who attributed special qualities to numbers.

a. *Based on psychology of number.* In the development of arithmetic the first step was *counting*, an intensely practical operation. The next step was notation, the setting down in symbols of the result of counting. The utilitarian value is the basis for McLellan and Dewey's definition of number: "Number arises in the process of the exact measurement of a given quantity with a view to instituting a balance, the need of this balance, or accurate adjustment of means to end, being some limitation." This expresses the exact manner in which number should arise in the mind of the continuation school pupil and indicates the approach which the teacher

must make. In his daily life at business, at home, or among his friends, a situation arises which requires exact measurement in order that a balance between resources and desire may be instituted. The home budget is a familiar example. On the one hand, there exist a number of needs and desires for food, clothing, shelter, amusement, education, and, on the other, a limited income. "An accurate adjustment of the means to the end" can only be attained through the use of numbers. The same principle applies to the more precise calculations involved in figuring the number of teeth, the diametral pitch, the pitch diameter, the pitch, and the depth of tooth, all necessary in cutting a gear. In all cases a vital situation is present, and there need be no artificial stimulation of interest. Number arises naturally, as it has always done, in the process of measuring, and measuring is the process of *making a vague whole definite*.

b. *Incidental disciplinary value.* While there can be no question that arithmetic should be taught for its practical value, there is no reason why any incidental disciplinary value should not be made to accrue to the teaching. While the habit of accuracy may not carry over to other phases of life, certainly neatness and accuracy should be insisted upon, not only for its value in the arithmetic but for its possible reflection in other work. While the *habit* of attention may not carry over from one subject to another, there are certain physical accompaniments of attention, such as good posture and methods of work, which should be insisted upon so that they may be repeated in other lessons and therefore assist in getting real attention. In other words, while arithmetic should not be taught in the continuation school with the primary

object of extracting its disciplinary value, every advantage should be taken of the possibility of utilizing whatever disciplinary value may inhere.

c. *Prime desiderata*. Assuming then that the practical, utilitarian aim provides the reason for teaching arithmetic in the continuation school, it is easily evident that the prime desiderata are:

1. Ability to work accurately. In business and the trades every answer must be 100 per cent perfect. A misplaced decimal point or a wrong figure may mean the loss of thousands of dollars.

2. Ability to work with reasonable rapidity. The worker is being paid for time spent on the job, and there is a limit to the amount of money and therefore time that may be consumed for any one piece of work.

3. Ability to work with interest. There can be no attention, and therefore no accuracy or speed, where there is no interest, and in business a very formidable hindrance is the listless, uninterested worker.

4. Ability in applying arithmetic to the ordinary affairs of life. This involves a consideration of just what constitutes the ordinary affairs of life for the pupils of the continuation school. And this means the course of study. What does the pupil lack?

Does he realize the value of saving?

Does he budget his expenses?

Does he know whether he is adequately paid or not?

Can he perform the calculations incident to his job?

Can he perform the calculations incident to the job next in line of promotion? For the job he is seeking ultimately?

These questions indicate the kind of material that must

be used in the course of study. Moreover, they indicate that there is no such thing as a course of study in arithmetic, but in fact a number of courses of study. Were the principle of the continuation school carried to its logical conclusion, a different course of study would be provided for each pupil, and in so far as this is administratively possible, such should be worked out.

Method—class lessons and individual teaching.—

The vocational guidance and the trade extension aims of the continuation school require that the pupils be grouped according to their occupations or according to their vocational aims, and that work contributing to their vocational betterment be given them. There may be in a continuation school classes in wood-working, electric wiring and installation, shop drawing, printing, auto mechanics, salesmanship, typewriting and office practice, garment design, bookbinding, commercial design, plumbing, bookkeeping, sewing, home-making, millinery. For each of these classes and for any others that may be formed correlated academic work in arithmetic and English must be planned, so that there are at least as many courses in arithmetic as there are vocations represented. The arithmetic for the worker in wood is the arithmetic necessary for building a house, for making furniture, for managing a lumber mill or for any other occupation involving wood-working. The arithmetic for the office worker is that required in handling bills, orders, receipts, telegrams, letters, inventories, files, payrolls and the like. Every occupation has its own problems in number work. In addition to these lessons a series of lessons must be designed to meet the common needs of all pupils in their home and social relations.

The lessons include the fundamental operations for general use and also the consideration of budgets and personal accounts, wages and salaries, thrift, simple banking, business forms, rents, taxes, life insurance, accident and fire insurance, gas and electric meters, standard and daylight-saving time, railroad travel, telephone, telegraph, transporting merchandise, transmitting money, foreign money, business methods in all arithmetical processes including checking results. The attempt must be made to touch upon every phase of the pupil's life where number is concerned.

In each of these vocational classes the pupils should be grouped according to the particular phase of the job they are interested in, and the program should be so arranged that each of these subgroups comes on a different session. For example, the pupils in the office practice class would be divided into messengers, office-boys, junior clerks, stock-boys, and a prevocational group. The arithmetic work for each of these groups would vary from the general course devised for the whole office practice group. Then again, because pupils must be admitted at any time of the year and are discharged when they reach the prescribed age, they will differ as to the amount of work accomplished. Each one may be at a different stage. Each pupil may be doing a different job in the vocational room, and should be doing arithmetic in the academic room which will correlate closely with that job. This indicates that the teaching of arithmetic must resort to the method of individual teaching. Whether any such refinement is possible depends upon conditions in a particular school. With this conception of continuation school teaching constantly in mind, the teacher may

make adaptations such as will assure an approach to individual instruction. The solution is the job instruction sheet in related information. Since the needs of all pupils for every-day life are much the same, lessons on these may be taught to class groups.

Class lessons—plan and method.—A good lesson must be carefully prepared, and then must be *taught*, not merely *given*. The teacher must keep in mind:

a. The teacher's material: aim, background for subject-matter, and preparatory questions.

b. The pupil's material; such as examples, type sentences, lists of words.

c. The lesson development, step by step.

These three kinds of material should be kept distinct.

The lesson must be prepared with respect to the *aims* of the continuation school, the conditioning factors, and *good methods*. So far as class lessons are concerned, they will include the following:

a. *Selection of topic.* This will be discussed in connection with the course of study. In each school a course of study must be planned for each vocational class, by the teachers themselves. The teacher should be ever ready not only to make courses but also to revise them.

b. *Aim.* For each lesson there must be a definite aim, absolutely understood by the pupil and constantly kept in mind by the teacher. The pupil's aim need not be the same as the teacher's. While the teacher's aim may be to give the pupil exercise in attaining a certain kind of skill, the pupil's aim will be to solve some problem which will bring him, for example, a greater income, or buy him some luxury. The one essential is that the aim be closely related to some vital interest of the pupil.

c. *Approach*. Success or failure depends most upon the approach to the lesson. From the very start the teacher must utilize the interest of the pupils so as to make each individual realize the direct relation of the lesson at hand to his own occupation and well-being in life. The approach should never be, "You boys cannot add fractions, so we are now going to have a drill on fractions." Children care nothing about their ability to add fractions. The pupils should be offered a problem of the kind they realize essential to the success of their work. They must be made to see that their failure to get the correct answer is due to a lack of proficiency in adding fractions, after which to supply their needs, drill is provided. The pupils cannot be expected to accept, as valuable, the work on the teacher's authority, nor should they be expected to. As a matter of fact, the important thing is that the pupils should be trained to see what is called for by these situations so that out of school they may of their own accord recognize the same situations and react toward them. A proper kind of approach will save much later trouble.

d. *Development*. This is the lesson proper. The method will vary with the type of lesson and the type of pupil. If classes are so organized that the pupils of the same grade or of similar vocational ability and interests are grouped in one class, it should be borne in mind that the development of a lesson for one group of pupils, trade extension, for instance, will not be exactly the same as that for a group of prevocational pupils.

e. *Drill*. It may be easy enough to stand before pupils and tell how something should be done, show how to do it, and then have it done—once. There is, how-

ever, no assurance whatever that they know how to do or will be able to repeat the exercise correctly unless some kind of drill has been given. Whatever the type of problem may be and however simple, similar problems, worded differently, should be presented and answers obtained. There must be practice. The time, it is true, is short, but it is far better to present a very simple problem and have it thoroughly mastered, than to work out a difficult one, with no opportunity to clinch it in the minds of the pupils, and have the process forgotten.

f. *Test.* The continuation school is organized upon the hypothesis that an opportunity is to be given to every pupil regardless of his or her previous educational advantages or ability to progress in the work as planned. This means that no minimum standards of scholastic achievement should be set up, thus to mark as failure the pupil who is unable to attain to that minimum. In continuation school there must be no failure. There will be misplaced pupils; there will be those who will have difficulty in finding their bent; but in every case the assumption must be, and it is a fair assumption, that the pupil can do something fairly well. There is danger, however, that this theory may be perverted to mean that there is to be no measurement of achievement, and that there is to be no testing of the efficiency of teaching. More and more it becomes necessary to justify the work of the continuation school, and one way of doing that is to show that those things which have been presented to the pupils have been learned. There is no certainty that a lesson has been taught and *learned* unless there is some kind of test or result to prove it. If the teacher thinks he has given a good lesson, he should give a test to prove it

to himself. This test need not and should not be formal except upon occasion. It should be only long enough and complete enough to assure the teacher and the pupils that a certain bit of knowledge, a certain kind of skill, or a certain measure of appreciation has been attained.

Individual lessons—plan and method.—It is not enough that the arithmetic related to a particular "job" should be given as a series of problems. The instruction sheet should be built up on as definite principles as is the vocational part. The essential features are:

(a) In setting up a motive for the lesson, the necessity of the arithmetic for the adequate performance of the job must be shown. The pupil must feel that he cannot perform the manual operations without a knowledge of this particular related information. The problem must be clearly stated.

(b) A typical problem must be solved on the sheet, each step being carefully analyzed and explained.

(c) In making this explanation every possible visual aid should be given. Drawings are especially desirable.

(d) Similar problems should be given without explanations but with answers, so that the pupil can check his results.

(e) Enough additional problems of considerable variety should be given to keep the brightest pupils busy beyond the length of the period. Opportunity must be provided for the pupil to exercise his powers to the full. Applications to other trades should be made.

(f) Problems should be so arranged and keyed that the teacher can quickly check the pupils' results, thus making individual instruction possible.

Devices in teaching.—While many devices found in

the elementary school may be used to advantage in the continuation school, there must always be kept in mind the conditioning factors which necessarily determine the modification of these devices as well as their selection. Some of these are:

a. *Multiple sense appeal.* The pupils must see and use symbols. Practical arithmetic is full of short cut methods of denoting measurements, and in use they are usually made to appear in writing or print; so the teacher must not be content to talk about them, but must place them before the pupils so that they can see them. In fact they must be made to appeal to all the senses. The pupils must see them, hear them, then write them and say them. The pupils must use them in every way in which they are used in business and trade.

b. *The pupils must see concrete objects.* In teaching arithmetic there should always be kept before the pupil the idea that numbers are used only because they facilitate the handling of concrete objects. Therefore, if the arithmetic being taught is that of carpentry, there is every reason for making the calculations by using actual stock or tools as illustrative material. With a thorough-going coördination of vocational with related subject teaching this should and can be done in all the classes.

c. *Drill on fundamentals.* When a teacher in continuation school sets out to teach a certain type of problem, the danger is that his energies will be diverted to a drill on fundamentals just because he finds that a number of pupils cannot add or subtract without making errors, or that he will for some time omit the teaching of problems altogether while drilling for weeks and weeks on fundamentals. There is no doubt that the pupil does

poorly in this respect, but it must not be forgotten, first, that for years and years the teacher in the full-time school has conducted such drill with much more time to do it, and, second, that deadly drill is sure death to interest. Drill on fundamentals may be given for three to five minutes each day, but it should follow upon the demonstration of the need for such drill. The pupil must realize the necessity. If future contractors have been making out specifications for the wiring of a house and the teacher can prove that these specifications are worthless because of inaccurate figuring, the pupils will take kindly to a brief, vigorous drill on abstract numbers as they would occur in the practical example. The pupil must also be shown the method by which he himself can attain proficiency in this respect. The drill may come at the beginning of the lesson only when the need has been clearly established at a previous lesson during which the same pupils were present, and this need has been clearly revived in the minds of the pupils. Individual job sheets should provide for sufficient drill.

d. *Dangerous practices.* Again, the conditions of the continuation school and the desired element of practicality make it necessary to avoid certain devices which are likely to be used in the full-time school. It is dangerous:

1. To require every problem in steps; it leads to dawdling. There is no time to dawdle. Unnecessary steps should be omitted.

2. To split hairs on forms; it gets away from the essential point. Again revert to the practical.

3. To require no analysis. Without any analysis there is bound to be lack of understanding.

4. To require some particular form. Practices differ in industries and business, and if any one of them gets results, it should be accepted.

5. To have pupils copy the problems on paper. This is sheer waste of time. The problems should be placed on the blackboard before the beginning of the period, or distributed on mimeographed sheets, or taken from a text-book.

6. To dictate the problems to the pupils. This is also a waste of time.

e. Checking results. In practical life the result of an arithmetical operation is what counts. No matter how fine the method or how neat the work, if the result is wrong, all the rest is valueless. There are various methods of checking results. These should be taught to the pupils and they should be used to check all examples.

1. In addition—adding up and then down.

2. In multiplication—reversing the order of the factors.

3. In division—multiplying the quotient by the divisor to get the dividend.

4. In addition—grouping the various elements, thus:

$$\begin{array}{r}
 a + c + d = e \\
 a' + c' + d' = e' \\
 a'' + c'' + d'' = e'' \\
 \hline
 f + g + h = i = (e + e' + e'')
 \end{array}$$

5. In subtraction—grouping the various elements:

$$\begin{array}{r}
 a - b = c \\
 a' - b' = c' \\
 a'' - b'' = c'' \\
 \hline
 d - e = f = (c + c' + c'')
 \end{array}$$

6. 45
 1987 Use 45 as the multiplier. In check-
 — ing the result, cover the last two rows
 9935 of figures with a piece of paper, and
 7948 write on the latter the product of
 — 9935 by 9.
 89415

7. Approximations. The pupil should always inspect the answer to determine whether the result is a possible one. Before getting the final answer, the approximate answer should be determined.

8. Omit some other phase of the problem.

9. Use some other method.

10. Work the example over again.

f. *Evils to Avoid.*

1. Wasting time. For instance, 10 minutes multiplied by 20, the number of pupils, equals 200 minutes or 3 $\frac{1}{3}$ hours. This is four per cent of the pupils' time in school during the week. Every moment is precious.

2. Accepting a passive attitude on the part of the pupils. There must be *interest, interest, interest.*

g. *Give periodic and incidental reviews.* But

1. Keep in mind the new pupil for whom the review is really new work.

2. Keep in mind the fact that a review should never approach the work from the same angle as did the original presentation. The application should be varied.

h. *Make use of the eye.*

1. Neatness and order should always accompany the work.
2. Squared paper should be used for diagrams.
3. Curves. This method of presenting figures graphically should be used wherever possible.
4. Colors. Colored diagrams are helpful.
5. Any type of schematic analysis.
6. Objective illustration.

i. *The text-book.* In any event the text-book should be used only as an aid. It should be used for examples, diagrams, and general reference, but not as a substitute for teaching either orally or through the job sheet.

j. *Accuracy of speech.* Because of the short-time contact it is essential that every stimulus to good speech be used. This should be applied in full force to arithmetic.

3. Trade Drawing

Reasons for teaching drawing.—The part which drawing plays in the education of the young worker is well stated by the Federal Board for Vocational Education:¹ "Since mechanical drawing is the universal written language of industry, it is assumed that the pupils entering the industrial field should receive thorough instruction in its various phases which pertain to their chosen trades. The preliminary work would deal with the reading of simple blueprints and advance through the more complex drawings to the making of simple, then technical, shop sketches, until skilled to the point of making complete detail and assembly drawings. The

¹ Federal Board for Vocational Education, *Part-time Coöperative Courses*, Bulletin No. 78, p. 21.

power of visualization, however, rather than that of expert execution, should be kept the primary object.

"Industry is particularly rich in sources for the teaching of this subject. Castings, patterns, and shop drawings from the drafting rooms of local industries may be had for the asking, and are a great deal more valuable as devices in the teaching of visualization than the use of a mechanical drawing text containing a number of exercise plates which are to be tediously copied by the students. It should be borne in mind that this subject is of great importance to industrial workers, and they should receive thorough training in its practical application and use in the industrial field in which they are employed, and not merely be given a conventional drawing course, which may be, in large part, purely descriptive geometry."

Method of teaching.—The words of a teacher who has met with marked success in this field indicate the essentials of good method.² "Trade drawing will hold the interest of the continuation school pupil, if content and method are correct. There exists no more effective course for bringing home to the student the general background of industry. The plan of the shop or store, the machine with its fascinating pulleys, the statistical graph, the wiring diagram, the advertising layout, anything which can be blue-printed, become drawing problems. The field is as vast as industry.

"The fundamentals of drawing are neglected at first. To the novice in continuation school teaching, the proper use of T-square, triangles, and compass is of paramount importance for the beginning pupil. But that is not the view of the pupil who has left the elementary school to

² Samuel Valenstein, East Side Continuation School.

enter fascinating industry. Convince him that the blueprint will help him in his job, by using the very print you find in his shop. No drawing is so complex but that it will furnish material for immediate instruction. The point of contact must be found. Somewhere within the apperceptive mass of the young worker, already enriched by contact with industry, there is a germ which can be made to multiply.

"This suggests a method of introducing the pupil to an absorbing subject. Pedagogically it is a method of developing interest. It is more than that. It compels interest and holds it. Concretely, the teacher wisely prepares for the reception of His Honor, the Young Worker. He knows the pupil's school record, job, and his choice of a career. When the pupil enters, the teacher will introduce him to his new classmates, will treat him like the man he is. If his record is bad, it is all the more important that he be given a fair start. The teacher should hand him a book descriptive of the industry the pupil has entered and flatter him that he has chosen wisely. The author will tell him so. It matters not if the pupil gets little instruction the first session. It is important, however, that the adjustment to his new school be made with the least friction. For some the process can stop with a handshake. For others the period of adjustment will cover three or four sessions.

"What problem in drawing will the teacher give him? The plan of a bungalow, with a set of simple specifications, I find useful. Previous training does not matter. The advanced pupil will get more out of the problem. The problem is presented as a job with its related academic work. If the pupil is slow to comprehend, the

assistance of an older pupil may be offered. The teacher should not overlook the services which the more efficient pupils can render. This should be the spirit of the class."

4. English

Reasons for teaching English—the three phases.—No argument is needed to prove the necessity of instructing young workers in English. As the various phases detailed below fully indicate, English is the medium of expression on the job, in the home, among friends. Proficiency in it is an essential to complete living. In selecting teaching material from both the vocational and non-vocational life of the pupil as a worker and as a member of society, the basis must be the present activity of the boy or girl. In order of importance, the facts are that the pupil *talks*, *reads*, and *writes*. The problem for teaching becomes:

a. *Talking*. What does he like to talk about? This provides the point of departure, the fund of experience, the apperceptive basis.

What additional subjects of conversation growing out of his spontaneous conversation should be suggested to him? This provides the content for a broadening of his experience.

How does he talk about them? This provides a point of departure for form, and becomes the basis of English instruction.

What corrections can be made in his speech and what additional elegance and power can be developed? This provides the vehicle for the improvement of form.

b. *Reading*. What does he like to read? This indicates the maximum of literary appreciation at the time.

What further reading-matter should be suggested to him? This provides for the development of literary appreciation.

Does he comprehend what he reads? This provides a measure of the maximum of understanding of the printed page.

What can be done to increase this comprehension? This provides for deepening and broadening the channel through which he obtains most of his vicarious experience.

c. Writing. What does the pupil actually write? This provides a measure of the maximum ability to communicate ideas on paper at the time the pupil is being considered.

What should the pupil be able to write for social and occupational efficiency? This provides additional content for a broadening of experience through the English lesson.

What should be taught the pupil to increase this efficiency? This determines the content and form necessary for such efficiency.

Talking.—*a. Subject-matter.* Boys and girls, like men and women, talk about a great variety of things. When they are working they talk glibly and frequently about their jobs, a little about the job itself, and much about incidents and accidents. They gossip. The significant happenings may be selected for teaching material and other even more significant occurrences suggested for discussion. These may be such as:

Asking for a job.

Meeting a caller.

Showing a visitor through the factory or the store.

Taking a telephone call.

Selling an article.

Instructing another workman on the job.

These topics provide conversation with a commercial value, for success in conducting such conversation spells efficiency and advancement.

They talk about their companions, their friends, their rivals, and their enemies. People are essentially interesting to them. It is an easy step to the great men and women of the hour. Through the teacher, the newspaper, the magazine, and books, they may become acquainted with persons about whom it is profitable to gossip. When these persons are men and women who have done well the work of the world, their lives have valuable significance for young people who are launching out on life's work.

From a little larger circle of experience, the pupils talk about happenings in the club or society to which they belong. The necessity for certain standards of conduct in the social group, adherence to rules of etiquette or to parliamentary rules, provides material for discussions of distinctly educational value. The pupils' excursions to movies, dances, and the beaches—their pleasures in general—give rise to endless talk, especially of a reminiscent nature, which may be directed toward a consideration of the sanest and healthiest types of pleasure.

In varying degrees boys and girls talk about events of current interest. These may be baseball games, prize-fights, scandals, or perhaps traction troubles, elections, or other municipal, state, and national affairs. Such interest is carried over to the more significant public events, and such events provide the liveliest subject-matter for constructive teaching in oral English.

b. Method. Such selection of material naturally precludes a fixed, inflexible curriculum. It precludes lessons on elements of formal grammar or solecisms except in so far as the English of a particular group of pupils indicates the need for such teaching. Therefore the speech of the pupils must be analyzed, the errors tabulated, and drills devised for their correction. Such instruction will revolve around:

- a. Lack of fluency.
- b. Poor sentence structure.
- c. Ungrammatical expressions such as ain't, ain't got, had n't ought, I done it, I seen it, leave him be, these kind, it's me, got it off him, we was, you was, he don't.
- d. Limitation of vocabulary.
- e. Poor enunciation and pronunciation.
- f. Lack of adequate and definite subject-matter.

The method for the correction of errors consists in numerous devices such as the one-minute talk, the brief debate, the impromptu dramatization, the rapid-fire drill, and the like.

In so far as the continuation school reproduces conditions on the job, it will provide in a natural way for exercise in the kind of English necessary for the efficient and decorous conduct of that job. The teacher in the machine-shop will talk to boys as the educated foreman would talk to his workers, and he will in turn expect them to reply as they would reply to the foreman, always assuming the best type of shop as a criterion. In thus reproducing life, drill in good usage becomes a natural and inevitable accompaniment of school conditions rather than a matter of artifice.

Reading.—a. Subject-matter. The total amount of

reading done by the average person, especially the young worker, is inconsiderable. What reading the boy or girl does centers for the most part in the cheaper, more sensational newspapers, magazines, and books.

Teachers show marked tendency to deplore this choice of literature by young people, and then they attempt to combat it by means of repression. Substitution is no less necessary in this case than in discipline. As with matters of public policy, a more important consideration than the facts of national life is attention to what people think those facts are. As a basis for teaching, it is at least just as important for the teacher to know and appreciate what the pupil thinks is good as it is for the teacher, in his superior wisdom and experience, to know what is best for the ultimate good of the pupil. Therefore, just as the gossip of the home and the shop provide a starting-point for oral English, the crude printed page plays a similar part for reading.

Such reading as that described above tickles the emotions and seldom provides information. Those who read to obtain information are few. Therefore, if reading is to fulfil its functions the transition must be made from the emotional type to the informative. In general the teacher must take the attitude that the literature with which the pupil is familiar has *some* value but that the pupil is missing much more than he could get and would want to get if he knew where to look for it. The pupil must further feel that the teacher is quite willing and anxious to point out these sources.

b. *Method*. One phase of reading should be almost entirely taboo except for the specially gifted pupil, and that is *oral* reading. In the first place, it has practically

no application in life; and, second, as a method of teaching reading, it serves only to waste time, and one minute lost during the meager four or eight hours a week is lost time indeed.

Reading for content should enable the young worker to understand, first of all, whatever written or printed matter may arise on the job. The most obvious subject-matter is that which arises in connection with the job instruction sheet. One of the first difficulties encountered in putting the method of the job instruction sheet into practice is the inability of the pupil to understand the directions on the printed sheet. This inability apparently results not from innate mental incapacity, but rather from the lack of practice in doing just that sort of thing. Instead of having been taught to do the job in the most economical and scientific way, the boy or girl, and the adult, for that matter, has learned "by ear," by word of mouth, by hearsay. This sort of teaching, or lack of it, generates a distaste for the other method, and it becomes necessary to overcome this inertia, or what proves to be a mere laziness. The first task of the academic teacher, in connection with each job, is to teach the pupil the meaning, in so far as the English is concerned, of the directions on that sheet. If these sheets are what they should be, a presentation of actual occupational situations, the English involved will provide the most valuable subject-matter the teacher could select.

With the same thought of increasing technical proficiency, the teacher will use various methods and devices, among which are:

- a. Wherever matter of any kind is read for content,

the pupil should be able to tell in his own words what he has read.

b. The pupils should be taught in reading texts to look for specific points such as orders and directions, and then to repeat them.

c. The pupil should be taught to work out the meaning of texts through the use of reference-books and dictionaries.

d. The effectiveness of reading should be taught and tested by oral and written reports on topics given for investigation.

e. The pupil should be taught how to *use* a book, especially a reference-book—the table of contents, the index, and the paragraph-headings.

In view of the brief time the pupil has in school, the amount of time given to reading for appreciation must necessarily be reduced to a minimum. The actual classroom teaching in English literature will be confined to such selections as can be used for moral and civic teaching, whereas the guidance of pupils along the lines of good English reading will take the form of personal advice to individual pupils as to the best kind of reading for his purposes. A judicious amount of carefully selected reading by the teacher should, if well done, stimulate an interest in reading in some pupils. From time to time the teacher should talk about books, suggest good books, and stimulate pupils to use the library.

The problem of reading in the continuation school should be a comparatively simple one, a much simpler one than in the full-time school. Since the English should and can be related to the job, which is the immediate

interest of the pupil, it may never be thought of or treated as a factitious, superimposed subject, but rather as an essential tool. This is true of all the so-called academic subjects.

Writing.—While the young worker and people in general talk much and read moderately, they write little or not at all. The amount of writing varies with the job, ranging from total lack in the altogether unskilled jobs to nothing but writing in some commercial occupations. Again, it is safe to say that if the job instruction sheet presents an accurate picture of actual occupational conditions, the written English, incident to that work, will be readily apparent. If the type of work is such that no written English is required (and incidentally the type of worker such that written English is a great burden for him), the work will be confined to the minimum of social correspondence in which the worker may be expected to indulge. An occasional letter of information or a reply to an advertisement may constitute all the subject-matter.

General unrelated lessons in English.—As with arithmetic, hygiene, and civics, wherever the shop job does not provide specific English content the time should be spent on the general life situations which require knowledge and use of English, situations in which every person is likely to find himself. Therefore the English course of study will consist, first, of the lessons based on the job instruction sheets, and, second, of a series of general lessons to be given when time and occasion demand. These lessons, whether oral or written, or given in connection with class or home reading, will center in such topics as:

The telephone	Companions, friends, and
The telegraph	associates
Good reading	Clubs and societies
Novels	Great men such as Lincoln,
Short stories	Washington, Roose-
Magazines	velt, Edison, Morse
Plays and theaters	Newspapers—
Motion pictures	Local news stories
Museums	Telegraph stories
Postal regulations	Sporting news
Answering an advertise-	Women's page
ment	Editorials
The election	Feature stories

5. Civics

Reasons for teaching civics.—In considering the function of the continuation school it has been shown that in its broadest aspects the aim of a school for young workers is to develop good citizenship. In some states, California, for instance, this aim is conceived so broadly that all others are made subordinate to it. In this sense, then, the teaching of civics is the sole aim of the school. For the purpose of selection and segregation of subject-matter with which to build up a curriculum it will be necessary to subtract from the total number of factors entering into good citizenship those which have been called English, arithmetic, hygiene, economics, labor laws, or have been known as electric wiring, wood-working, sewing, or the like, and to concentrate upon those teachable facts or habits bearing directly upon the conduct of the individual in relation to his fellow beings. Such a group of facts or habits is usually called civics.

That there is need for such teaching for all boys and girls up to the eighteenth year there can be little doubt. A casual survey of the civic conduct of adults makes this evident. As the child is so is the adult. When asked to designate the type of subject-matter suitable for their employees, employers almost invariably place stress upon such virtues as control of conduct in relation to others—honesty, loyalty, sense of responsibility, they say. (The preachers, the editorial writers, the legislators and administrators, point to the decline in these virtues. They all see salvation in education.) The social doctors are very conscious of a disease; they mark well its symptoms; they even make a plausible diagnosis. The prescription, however, is always a pretty general, old-fashioned panacea with only vaguely designated ingredients in indefinite quantities. Of this, more will be said below. The point here is that the general and insistent demand for civic education must arise from a vital need. When the character of the part-time pupil is considered, his mental and moral attitude, his previous school education, his early entrance into an adult industrial environment, it is clear that such civic education is of considerable importance both to the individual and to the community.

Selection of subject-matter.—Civic education necessarily includes all teaching and training resulting in a modification of conduct in relation to others. In the continuation school, except for civics per se, these are vocational guidance, prevocational, trade preparatory, and trade extension training, and the related subjects, English, arithmetic, history, economics, labor laws, and hygiene. The skilled, ambitious, contented, orderly, co-operative, conscientious worker is a good citizen. Voca-

tional guidance should counsel pupils so effectively that such citizens will be produced in greater numbers through the placing of the right man on the right job, by discovering aptitudes to apply to jobs and discovering jobs to utilize aptitudes. Vocational guidance should eliminate waste, discontent, and slacking. It should build up an industrial and economic machine, the component parts of which are so sound that the whole will run smoothly and efficiently. That this may be so the various types of vocational training are necessary complements. When effectively carried out, it is to be assumed that the parts of the machine, which have through guidance been properly placed, will be perfected in their various functions. Also contributing to this adaptability to function is the hygiene which makes the worker himself a lasting, effective part of the machine.

While all this is true, there still remain two reasons for segregating certain subject-matter and calling it civics. First, there are some very definite facts about community life which would not necessarily be called "related information." Community customs, methods of carrying on public business, national ideals, are of extreme importance to every citizen, and therefore must be brought to his attention in such a way as not to seem of merely incidental worth. Second, it is a psychological truism that matters which require emphasis and are meant to hold the attention must at some time or other be brought to a focus. Therefore, not only must these community facts be emphasized, but those elements in vocational guidance, vocational training, and hygiene which especially contribute to good citizenship must be segregated from time to time for special treatment.

For the purpose of arriving at an effective course of study in civics Snedden proposes the case group method. This, in brief, postulates that citizenship should be evaluated as it now exists in homogeneous groups, and that the course should be based upon the needs revealed by such a study. For instance, he contrasts the 25,000 men high school teachers in the United States with the numerous young women between 18 and 25 years of age in an Eastern manufacturing city. Of the first group he says: "As a class or group what kind of citizens are they? Do they stand high in the conformist virtues of respectability, compliance with laws, good example? Do they rank low in the virtues of civic initiative? Even in their conformist virtues do they rank as high as society has a right to expect from persons of their fortunate heredity, educative environment and social position?" Of the women he says: "Wherein do they show 'prevailing' civic virtues? What proportion probably 'sell' their votes? What proportion vote on the wrong side of important public questions? What proportion break laws established for the protection of property, the family, public order? What are reasonable standards which society should expect them to reach in virtues of civic initiative? What proportion fail to reach these standards?"³

The continuation school group consists of one or several fairly homogeneous groups with respect to the need for civic education. The characteristics of these groups are given under the heading "The Characteristics of Part-time Pupils." From these can be readily deduced the need for civic training necessary to raise the quality

³David Snedden, *Civic Education*, p. 129.

of civic response to the level desired by society at large. The characteristics are the result of heredity and environment. The desired response springs from society's conception of the ideal state, tempered by a realization of the limitations of the homogeneous group concerned. With the part-time group the needs and the remedies are fairly well defined.

Methods.—As with the other phases of continuation school work, *instruction* in civics is only one method, and probably not the most effective method, of promoting good citizenship. Citizenship is essentially a matter of action, conduct. Good teaching will provide opportunity for the personal stimulation of a desire to act in accord with the standards set by society and for the practice of good civic conduct. The methods available in the continuation school are:

a. *Counseling.* The teacher in his capacity of vocational and personal counselor has abundant opportunity to give the individual pupil such advice as is adapted to his own needs. Emphasis upon the private interview and individual instruction will bring about among teachers an attitude of solicitude for the welfare of each and every boy and girl, so that good citizenship will at all times be the unconscious as well as the conscious aim of the teacher.

b. *Affecting the pupil's participation in life.* The continuation school pupil is always a worker. He is participating in business and industrial life and to the extent of such participation must suffer or enjoy the reactions of life. The work of the school is so closely related to this life that the life reactions must be reflected there and thus come within the purview of the teacher. There-

fore, not only in the class-room but in the home and in the business office or factory the teacher, while visiting and establishing coördination, will find it possible and essential to affect the pupil's conduct in those phases of life which constitute the duties of good citizenship. Good coördination is necessary for the development of good citizenship.

c. *Bringing life and people into the school.* If the school is truly functioning it will bring into the school the men and women who have been successful in public or industrial life. The pupils will be given an opportunity to listen to them, to absorb their special knowledge and enthusiasm, and, if possible, to meet and advise with them personally. The assembly will be the natural meeting-place. In fact the assembly lends itself easily to emphasis upon civics, for the group is comparatively large, and enthusiasm is easier to instil. Song, moving pictures, dramatic performances, are all appropriate and effective.

d. *Stimulating extra-school activities.* In a sense, extra-activities such as parties, dances, excursions, hikes, school organizations, school publications, might well be considered under the heading, "participation in life." They enable the pupil in a small way to exercise those talents which as an adult he will require for the life of the community. Proper direction along these lines will lead to good citizenship.

e. *Giving instruction.* Formal teaching of civic facts has been left as the last method, as it is the least effective. If mere telling is a poor method in the full-time school, it is sheer waste in the continuation school. While classroom instruction must necessarily supplement the other

activities, the topics must be vital and must not be chosen in any arbitrary order. Timeliness and appropriateness must be the determining factors.

"Citizenship" conceived broadly.—In the attempt to make the boy or girl a "good worker," to "mold" him or her into a good citizen, there lies the danger of repression, of standardization, at the expense of individuality. Through its close coöperation with employers and with labor-unions it would be very easy for the continuation school to fall under the dominance of a special class ever ready to impose its formula upon the pupils. Society at large is insistent upon adherence to its conventions. A "liberal" college finds little support from employers. Liberality or conservatism are not issues in a continuation school; the core of instruction is vocational, and the pupils are young. However, if the school is to function successfully, two considerations are important:

a. The pupil must be taught the truth regarding his relation to political and economic life. His eyes must be clear to see the facts in industrial life, and his mind must be exercised to understand them.

b. The pupil must be given opportunity to exercise initiative, to develop his powers, to become an individuality. In the last analysis the best citizen is the person who expresses himself most completely. This expression may need curbing here and there to conserve the liberties but not the privileges of others. Good citizenship requires the "whole man" and the "whole woman."

In the eyes of the community the good man is the good citizen and the good citizen is the good man. What "good" means will depend upon the teacher's attitude toward truth and individuality. Courses of study in

civics tell little of this attitude. They tell nothing of the teacher's activity as counselor and coördinator. It is through these phases of the school work that citizenship is taught. Whatever the teacher does to modify the pupil's conduct to the advantage of both the community and himself will contribute to the making of a better citizen.

6. Hygiene

Reasons for teaching hygiene.—In so far as the interest of society in the worker, whether young or old, has expressed itself in legislation, that interest has aimed to safeguard his physical welfare rather than to develop his mind or even to improve his economic condition. Shorter hours of labor and more sanitary working conditions were recognized as desirable objects before the vocational training of the worker was ever conceived. Apprenticeship, which was a private contractual relation sanctioned by law, involved the care of the young worker's physique as well as his moral guidance and trade training. In the general field of education the care and development of the body have received increasing recognition during these latter years owing first, probably, to a growing sense of social responsibility on the part of the community at large, and, second, to the influence of research conducted by public and private health organizations, insurance companies, and the school authorities themselves. The specialization of industry, with its increasingly numerous occupational hazards and the employment of children in industries, has been a further stimulus to the study of the health of the worker. When it is known that diseases contracted and injuries suffered

during the adolescent stage are peculiarly liable to remain with the person during the remainder of his life, the physical safety and well-being of the young employee deserve special attention.

To the individual his health is of great moment. While much may be done for him in childhood through training and the setting up of good habits, it is only as a worker that he begins to *think* of health as a factor of success in his life. Hygiene can be taught in connection with the job more readily than in any other way, for not only can the effects of the job on physical welfare be pointed out at the time when the worker is actually engaged on that job, but inefficiency on the job or even total inability to continue to hold it may be made apparent beyond dispute. Adequate facilities of the school for the follow-up and the treatment of the worker are more important than they are for actual class-room teaching. Therefore, while the presentation of facts in hygiene will have its place in the curriculum, such teaching will, in a sense, only generalize and standardize the individual instruction, admonition, guidance, and follow-up which each pupil will receive as a result of initial and successive physical examinations in the continuation school. The human machine which does the job is of prime importance, for the school, which interests itself in the young worker, assumes responsibility for the pupil's health and takes every measure to promote and conserve it.

Physical standards for working children—Children's Bureau.—Any course in hygiene for the continuation school cannot be written without taking into account the few studies which have been made by physicians in this

field. A committee of physicians appointed by the Children's Bureau of the Department of Labor, as a result of its investigations and deliberations, set up certain standards.⁴ They are:

"a. *The age minimum for entrance into industry.* The minimum age for the entrance of children into industry should not be younger than sixteen years. Since it is recognized that the physiological and psychological readjustments incident to pubescence (which in the vast majority of cases are not completed until the sixteenth year) determine a period of general instability which make great and special demands upon the vitality of the child, it is of paramount importance that he should be protected during this period from the physical and nervous strain which entrance into industry inevitably entails. The committee recognizes the fact that pubescence may occur early or may be very greatly delayed, and is convinced that the longer it is delayed the stronger is the indication of a physical stage during which it is highly inappropriate to subject the child to the strains of industry.

"b. *Physical minimum for entrance into industry.* No child between the ages of sixteen and eighteen should be permitted to go to work who is not of normal development for his age, of sound health and physically fit for the work at which he is to be employed.

"c. *Physical examinations for children entering industry.* The physical fitness of children entering industry should be determined by means of a thorough physical examination conducted by a public medical officer ap-

⁴*Physical Standards for Working Children*, Bureau Publication No. 79 of the Children's Bureau.

pointed for this purpose. Where possible all examinations should be made without clothing. Before such a physical examination is made, the child should present a definite promise of employment in writing from his intended employer, stating the specific occupation at which he is to be employed.

“d. Reëxaminations for children changing occupations. The employment certificate should not be given to the child, but sent by mail to the employer. When a child leaves the specific employment for which the certificate was issued, the employer should return the permit to the issuing officer by mail. With each change of employer another examination should be made before the child is again permitted to work, the mode of procedure to be the same as in the issuance of the original permit. When a child is transferred to any occupation in the same establishment differing in its physical demands and hazards from those common to the occupation for which the permit has been issued, this must be communicated by the employer to the issuing officer in writing, and a new physical examination of the child made and a new certificate issued.

“e. Periodical reëxaminations for all working children. All employed children up to the age of eighteen should have at least one yearly physical examination, to be made by a public medical officer appointed for this purpose. Whenever in the judgment of the medical examiner more frequent examinations are desirable, the child should be ordered to report at stated intervals for this purpose. These examinations should take place in the certificate issuing office, in the continuation school, or in the establishment in which the child is employed.

"f. *Centralized control of methods of examination.* In order to insure uniformity in methods of examination in each state, the state labor or other department administering the child labor law should have authority to make rules and regulations relative to methods of examination and qualifications of examining physicians, to prescribe record forms, and to require reports with reference to examinations made. Each such department should employ one or more physicians qualified in industrial hygiene, who shall be authorized and required to supervise the work of the local examining physicians.

"g. *Desirability of physical examinations of children during school and preschool period.* Many of the physical defects found in children applying for work permits could easily have been discovered and cured, or prevented altogether, by proper examination and treatment during the child's school life, or even earlier. The committee therefore urges the necessity for the provision of adequate facilities for medical examination and treatment of all children of school and preschool age.

"h. *Need of study by local administrative and medical officers of occupations in which children are employed and of their effect upon health.* Occupations in which children are likely to be employed should be made the subject of special study for the purpose of ascertaining their physical requirements and their effect upon the health and development of the growing child. The examining physician should be authorized and required to visit periodically industrial establishments and to familiarize himself with conditions of employment and with the various health hazards of industry.

"i. *Need of authoritative scientific investigation.* The

committee recognizes the impossibility of formulating definite physical standards for children in industry which will be complete and finally authoritative without a great deal of further scientific study of the effect of different kinds of work upon the health and physique of the adolescent child.

"Research is especially needed with reference to:

"1. The rate of growth and development of children employed in different occupations and industries as compared with children not in industry.

"2. Morbidity among children employed in different occupations and industries as compared with children not in industry.

"3. Mortality among children employed in different occupations and industries as compared with children not in industry.

"4. Fatigue in children employed in different occupations and industries.

"5. Effect of employment in specific occupations at different stages of physiological development upon the growth and health of:

"(a) Normal children.

"(b) Children with certain physical defects (such as compensated cardiac disease or with orthopedic defects) or with a personal or family history indicating predisposition to certain diseases.

"6. Effect of employment in specific occupations upon the menstrual function and pelvic organs of adolescent girls and young women.

"7. Types of work desirable for:

"(a) Children and young persons with some mental defect who, nevertheless, are able to fulfil the educa-

tional requirements necessary to obtain employment certificate.

"(b) Children and young persons who are suffering from certain physical handicaps, such as the partially disabled child and the child with seriously impaired vision or hearing.

"8. Industries and occupations in which children are customarily employed with special reference to health hazards."

Believing that certain scientific data already exist for the setting up of minimum standards, the committee proceeds to state these standards.

Growth and development of young workers.—The first problem suggested for research has since been investigated several times, first in the Newark Continuation School by Dr. H. H. Mitchell, one of the original committee, and then very extensively in the East Side Continuation School by the New York Tuberculosis Association, the Association for the Prevention and Relief of Heart Disease, and the New York State Labor Department.⁵ The most comprehensive survey has been that of the New York Tuberculosis Association under the inspiration and guidance of Dr. Iago A. Galdston. More than two thousand boys were thoroughly examined and their defects noted. The boys were directed to have the defects treated by their family physicians or to attend designated clinics with which special arrangements had

⁵ Final reports on two of the East Side Continuation School reports are not available at the time this book is published. They may be obtained later, however, by addressing Dr. Iago A. Galdston, New York Tuberculosis Association, 10 East 39th Street, New York City; and Miss Nelle Swartz, New York State Labor Department, 124 East 28th Street, New York City.

Total Defects

Age	Total	Underweight	Malnutrition	Anemia	Defective vision	Eye disease	Ear defects	Decayed teeth	Enlarged tonsils	Nasal obstructions	Skin conditions	Orthopedic defects	Serious gland conditions	Lung conditions	Cardiac defects	Abdominal defects	Genital defects	Nervous abnormalities	Miscellaneous
15	264	28	33	10	78	6	3	105	96	19	32	17	11	13	18	13	8	1	2
16	978	124	90	53	260	29	38	446	402	88	101	63	11	30	78	47	54	17	16
17	758	106	79	37	202	25	26	373	359	80	97	56	5	31	58	32	25	7	5
Total	2000	258	202	100	540	60	67	924	857	187	230	136	16	74	154	92	87	25	23

Percentages

Age	Total	Underweight	Malnutrition	Anemia	Defective vision	Eye disease	Ear defects	Decayed teeth	Enlarged tonsils	Nasal obstructions	Skin conditions	Orthopedic defects	Serious gland conditions	Lung conditions	Cardiac defects	Abdominal defects	Genital defects	Nervous abnormalities	Miscellaneous
15	264	10.60	12.50	3.78	29.54	2.27	1.14	39.77	36.36	7.19	12.12	6.43	...	4.92	16.2	4.92	3.06	37	74
16	978	12.67	9.20	5.41	26.58	2.96	3.88	45.60	41.10	8.99	10.32	6.44	1.12	2.76	6.9	4.80	5.52	1.73	1.63
17	758	13.98	10.42	4.86	26.65	3.29	3.43	49.20	47.36	10.55	12.80	7.38	.65	4.08	8.0	4.22	3.29	.92	.71
Total	2000	12.90	10.10	5.00	27.00	3.00	3.35	46.70	42.85	9.35	11.50	6.80	.80	3.70	7.7	4.60	4.30	1.25	1.15

Survey of 2000 Boys in East Side Continuation School made by the New York Tuberculosis Association

been made. Teachers followed up each case until everything possible had been done to obtain compliance with instructions. They were successful in 50 per cent of the cases. This is considered a high percentage. The survey of the Association for the Prevention and Relief of Heart Disease covered 837 girls, following the same procedure. The work of the New York State Department of Labor has not yet been completed, but upon the basis of what the two previous organizations have done, the technique is being refined and the examination made more thorough. Probably more than a thousand boys and girls will have been examined and followed up with especial reference to the effect of industry upon health.

Number of Defects

Age	Total	Normal	1	2	3	4	5	6	7	8	9	10
15	264	36	83	79	52	11	2	1	..	..	..	..
16	978	113	308	314	178	46	15	3	..	..	..	1
17	758	76	229	252	144	47	10	..	..	..	..	..
Total	2000	225	620	645	374	104	27	4	..	..	..	1

Percentages

15	264	13.63	31.40	29.92	19.69	4.16	.75	.37	....	....	....	...
16	978	11.55	31.49	32.10	18.20	4.70	1.53	.30	....	....	....	.10
17	758	10.02	30.21	33.24	18.99	6.20	1.31	...	....	....	....	...
Total	2000	11.25	31.00	32.25	18.70	5.20	1.35	.20	....	....	....	.05

Survey of 2000 Boys in East Side Continuation School made by the
New York Tuberculosis Association.

Survey of 837 Girls in the East Side Continuation School made by Association for the Prevention and Relief of Heart Disease:

Examinations	837
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Referred Defects

Dental care	258
Eyes, ears, nose, and throat	93
General upbuilding and medical attention	16
Heart condition	29
Lung condition	8
Mental defective	1
Orthopedic defects	14
Overweight	1
Skin condition	22
Tonsillectomies	53
Thyroid and endocrine treatment	20
Total number of references	515

Unreferred Defects

Anemia	73
Malnutrition	50
Eyes	88
Ears	2
Mouth	20
Tonsils	46
Nasal obstruction	48
Skin	79
Hair	209
Glands	120
Chest	43
Lungs	20
Heart and circulation	88
Nervous system	18
General hygiene	161
Miscellaneous	53
Total	1118

Whatever other interpretation may be placed upon these figures, one conclusion is clear and inescapable: young workers need examination, diagnosis, and treatment. The continuation school is the center in which all such activities can and should focus. The physical examination given as a condition for the issuance of working papers is apparently inadequate for the protection of boys and girls. Nothing but close and persistent follow-up will suffice. The figures speak for themselves. Nearly half the children with decayed teeth! More than one quarter with defective vision! Ten per cent suffering from malnutrition! And yet all these boys and girls beginning their careers as workers. In the Newark survey the investigator found that among the boys 27.3 per cent were prepubescent or pubescent, and among the girls 11.6 per cent were prepubescent, and in his opinion should be regarded as children who should not be exposed to the responsibilities and hazards of wage-earning. It is at this age that the tuberculosis death-rate begins to rise, and the presence of tuberculosis even in a small percentage of cases suggests that this period provides wide opportunity for effective results in preventive work. Dr. Mitchell notes:

The importance of personal hygiene in the prevention of tuberculosis, the susceptibility of adolescent minds to training and instruction, and the special needs of this wage earning class are most impressive arguments in favor of more thorough and extensive instruction in personal hygiene and training in health habits in the continuation school.

Most of the pupils with defective vision had obtained their glasses at the time work permits were issued. Of these cases

who had obtained glasses prior to our examination only 25 per cent of the boys and 34 per cent of the girls wore their glasses regularly. In other words, the energy and money expended in obtaining glasses for these children with defective vision at the time of the issuance of work permits, had been wasted in the case of three quarters of the boys and in the case of two thirds of the girls. In a few cases it may be difficult to obtain the coöperation of the child sufficiently to persuade him to wear glasses when he has defective vision, but we believe that continued educational work in the continuation school would not only result in persuading the child to wear his glasses, but would prevent a great deal of eye-strain among the children not in need of glasses. For the most part, this instruction could be given by the teacher, while the more difficult cases, in which pupils neglect to wear their glasses, could be reached through the help of the public health nurse. . . .

57.5 per cent of the boys and 53.9 per cent of the girls were found with dental defects at the time of our examination. Although a fairly large number of children were allowed to go to work without obtaining corrections for all their dental defects, they were not the only cases found with defects at the time of our examination. Of those who had gone to work with no recorded dental defects, 51 per cent of the girls and 50.9 per cent of the boys had dental defects, after six months or more of work. Such data indicate fairly conclusively that the one examination could not result in adequate care of the teeth of these children unless some further means could be provided for such efficient instruction that the children would appreciate the necessity for semi-yearly dental examinations and corrections. It seems likely that this instruction and training could best be accomplished through follow-up service in the continuation school. . . .

4.2 per cent of the boys and 4.1 per cent of the girls had ton-

sils in such a serious condition as to present a distinct menace to their health.

16 boys and 5 girls were in need of special attention because of deafness or other ear defects.

23 boys and 58 girls were suffering from affection of the skin. Many of these conditions could be corrected by proper treatment.

3.5 per cent of the girls had such marked hypertrophy of the thyroid as to be regarded as in need of treatment or supervision.

3.9 per cent of the boys and 5.4 per cent of the girls had some organic heart condition which should be under the observation of a physician.

In summing up the results of the New York Tuberculosis Association survey Dr. Galdston makes the following stirring appeal for the physical care of the adolescent worker:

It is not within the province of this study, nor the object of our endeavor to work out specific plans for effecting a remedy of the conditions we discovered. That must be left to the competent administrators who are acquainted with the practical difficulties of the field and who know best how to put theory into practice. But we cannot resist the temptation to indicate what in our opinion are some of the steps that need to be taken in order that we might achieve some improvement. The most obvious need is more extensive and detailed instruction of the school child in the elements of personal hygiene. Coupled with this should be a strict supervision of the physical development of the school child. Apropos of this should be noted the injurious effects of the long outgrown but still remaining spirit of *laissez faire* which bandies the responsibility for the child's physical condition between school and parent, with the result, in so many cases, that be-

tween the two nothing is done and the child is allowed to suffer.

Full responsibility is assumed by the state for the child's mental development. Why not for his physical development also? How much would we save ourselves, in every way, if as much effort were put into making the malnourished child normal, as we do in cramming into its resistant mind futile dates of wars and treaties? 'A sound mind in a healthy body.' Why do we split this combination and treat only the mind? Why should we not require a complete physical examination of every school child upon admission, and at least once a year thereafter? Why should it not be the responsibility of the teachers and principals to follow the physical development of the child with as much care and detailed attention as they now do the development of his mind and knowledge? Would it not be the most economic of procedures to have a physician on the staff of each school—one who would be in constant and intimate contact with the principal, teachers and children? Could not some arrangement be made whereby the clinics and hospitals would coöperate with the schools in remedying the conditions discovered?

And when the child leaves school and goes to work, what should determine the issuance of work-papers? Should age alone count, or should physical development be taken into consideration? Is the fourteen-year-old child fit mentally, morally, and physically to enter industry? And what about the work the child does? How often does it tax the boy's or girl's strength to exhaustion? How often does the monotony of his work stunt the boy's mental development, and the trying ten-hour day behind the store counter make a lifelong neurasthenic out of the young girl?

Those who build for to-morrow, and those who are interested in the eradication of the white plague must ask these questions and answer them as circumstances allow. The

training of the youth and maiden was well appreciated by the great civilizations of antiquity, but to-day its significance is lost in the fire and steam of our cauldron existence. Most of us were shocked by the results of our last war's draft examinations. But what attention did these defective beings receive when they were youths plastic and amenable to correction? We anticipate an objection.

The group we dealt with is not representative of the great American population. No—neither are our tuberculosis deaths. We lump our 110 millions and calculate our tuberculosis mortality as so many per 100 thousand. But our figures are crude and belie the situation. Sweepingly we are told that tuberculosis affects rich and poor, high and low, young and old, but this is the smaller part of the truth. Tuberculosis takes its most numerous victims from the ranks of the overbred, overworked, underpaid, undernourished and ignorant masses. On Manhattan Island, the Riverside section has a death rate of 50 per 100,000, and the Battery a rate of 1117! Our group is not representative of the average; it represents, however, the great mass from whom we get the bulk of our tuberculosis deaths.

The continuation school as a focus of physical welfare activities.—Physical handicaps can be discovered through periodic reexaminations in the continuation school and can be cared for by a follow-up. It has been done with marked success in a large number of cases. The combination of the doctor, the nurse, the parent, the employer, and the teacher is an irresistible one when the various factors are properly coördinated. The teacher is the coördinating agent. In the matter of eyes and teeth at least half the pupils have been stimulated to action for removal of defects. In cases of underweight and overweight pupils there has been a decided change where

a properly balanced diet has been recommended. The more deep-seated the defect, the more in time, energy, and money must be spent for its removal, but there is no physical condition in which the continuation school cannot be a tremendous factor for good. The results of these examinations, considered in connection with the program of the Children's Bureau, indicate the possibility of centering all health activities in the continuation school. Not only can many strictly medical measures be carried out in clinics forming part of the school, but the entire program of the bureau offers tremendous possibilities for related teaching in hygiene, for the accumulation through coördination of knowledge regarding various jobs, and for the coöperation of all social agencies interested in health problems.

When considering the problem of the health of the young worker it must be remembered that there is always available an appeal to his or her usual desire to enjoy the best in life if he cannot be appealed to from the standpoint of ability to succeed in the occupation. In the girl there is most usually the desire for an attractive appearance. The motives and stimuli for good health are not lacking. There remains for the administrator only the task of coördination and follow-up to the end that definite results be obtained.

Selection of subject-matter.—The course in hygiene must grow out of the needs of the individuals such as are indicated by the defects noted above. This is a prime consideration. Out of this will probably grow a series of lessons on general occupational dangers and measures to be taken to avoid them. Another series will deal with general personal hygiene applicable to every person,

worker or not. Another will deal with special hygienic measures to be taken by the young worker. Another with the hygiene of sex. Another will contain a series of unit lessons to be related to the various jobs in the shops, these to be taught as the jobs are being executed by individual pupils. The great danger, as with the other subjects of the curriculum, is that the course in hygiene become a fixed and rigid thing. This need not be so if there is constantly kept in mind the fact that the individual need is more important than any carefully devised curriculum. Whatever lessons are chosen, they must be used at the time they are most appropriate. If for any particular period the jobs being performed give no clue as to the appropriate lesson, then some other interest must be drawn upon. Current events such as clean-up week, fire-prevention week, safety week, an epidemic, a snow-storm, or other event of general interest will serve to motivate the hygiene lessons without artificial forcing.

a. *Personal hygiene.* The hygiene material will grow out of each of four phases of the life of the young worker: the personal, the occupational, the public, and the social. Personal hygiene will involve all those details of the young worker's physical life in so far as they affect every individual regardless of his environment. Under this topic will come the care of teeth, eyes, ears, hair, stomach, lungs, nerves, and the other parts of the body which require the thought of their owner. All this must be taught functionally, of course, and not in the manner of the old physiologies. It will be related in some cases to occupational, public, and social hygiene. For instance, the care of the lungs involves sleeping in fresh air, passing laws guaranteeing fresh air, and refraining

from polluting the air that others breathe. Obviously, hygiene in the individual is not a strictly personal matter. Other topics under the head of personal hygiene include recognizing common symptoms, self-treatment and patent medicines as opposed to doctor's treatment, and the warding off of disease.

b. *Industrial hygiene.* Much of the subject-matter in industrial hygiene must be taught in relation to individual jobs. Some of the subjects are: choice of an occupation, occupation and health, acute sense and good workmanship, brain work as opposed to manual labor, first aid, fatigue, leisure hours, holidays and outings, lighting, ventilating, heating, preparation for the day's work, fire protection, dangerous machinery, occupational diseases, hours of employment, prohibited employment for women and children.

c. *Public hygiene.* This will include such topics as water-supply, street-cleaning, vaccination, the Schick test and immunization, traffic regulation, quarantine, building laws for tenements, recreation centers, Red Cross relief, hospitals, clinics, Board of Health activities, clinics for drug addicts.

d. *Social hygiene.* That adolescent boys and girls should be in possession of certain biological facts regarding the relation of the sexes seems to be pretty well conceded, but as to the manner of giving it and the persons to give it there is nothing approaching unanimity. Notwithstanding this, it cannot be stated too emphatically that if there is need for sex advice at any time of life and in any group, it is among young workers, and it is therefore the business of the continuation school to see that this instruction is given. Whether it come from the par-

ent, the doctor, the nurse, the clergyman, or the teacher is immaterial so long as it is given. It can be given by any of these agencies if pressure enough is brought to bear so that the need is felt. The continuation school must exert this pressure.

Methods.—Much emphasis has been laid upon the necessity for individual teaching in the continuation school. In so far as it is necessary to care for the individual health needs of the pupils the teaching of hygiene must be individual, but this should rather take the form of private interview and follow-up. The general lessons in hygiene should be presented to the class as a group, and should be inspiring, forceful, and emphatic. There should be much discussion and exchange of experiences. There should be left in the pupils' minds vivid pictures which will stimulate them to do voluntarily the things suggested by the teaching. Every possible aid to the eye should be used—posters, charts, objects, lantern-slides, moving pictures. Available text-books on the subject are few in number and very inadequate. Moreover, as in the other subjects, the text-book is a sore temptation to waste time. Much more effective are the numerous pamphlets published by insurance companies, health organizations, and industrial concerns interested in the health of their workers. Add to these the health magazines and the sections of magazines and daily papers devoted to the conservation and improvement of health, and there readily accumulates a wealth of material of live interest.

In the matter of health, as in occupations, social relations, and morals, the guidance of the pupil with corresponding pressure to assure the reaction is more im-

portant than direct teaching. The lessons in hygiene will be only one factor in the betterment of health. Teachers will visit the places of employment of pupils and as a result of the inspection of conditions of work will advise the pupil as to posture, dress, hours of rest, cleanliness, and will advise with the employer, where it is feasible and politic, upon the sanitary conditions in the plant. In the school itself the teacher will insist upon good standing and sitting postures both for vocational and academic work. School conditions approaching or reproducing conditions will cause this advice to carry over into the job. In order that instruction may be even more practical the school should provide facilities for exercise and athletics. All apparatus supplied to the full-time elementary and high schools should be available for the continuation school. The time for physical training is necessarily limited, especially under a four-hour-a-week program; nevertheless the urgency of such training for the child who goes to work at the earliest opportunity, and in any case sooner than his more fortunate brother, is so great that it should be kept well in the foreground as a vocational guidance and efficiency factor.

Adequate results require vigilance, persistence, and insistence.—The possibilities for health betterment in the continuation school will keep the sympathetic and resourceful teacher ever watchful so that by the chance word and private interview he may do much to improve the physique and therefore add to the efficiency and happiness of our young people. The administrator will organize the school so as to draw systematically upon outside agencies for aid. To the extent that practical measures are used for the furtherance of the health of the

boys and girls, the school will function in developing healthy men and women.

7. Economics

Reasons for teaching economics.—a. *The young worker an economic man or woman.* Through choice or circumstance the young boy or girl is to a certain extent dependent upon his income, has become a producer of goods and is often the support of others. This is not true of the pupil in the elementary school, although the latter is often of the same age and of higher mentality.

b. *The young worker needs understanding of his new environment.* The boy or girl is thrown into this environment without an adequate understanding of what it means for him. He thinks only of his dislike for school work, or the novelty of his new position, or of the desirability of earning money. He is content for the time being to let the forces of the world play upon him without making any attempt to control these forces. Even if he were not content, he would not know what to do. The very fact that the boy or girl is in the continuation school is an evidence of economic maladjustment, of a failure of the pupil to profit by the normal processes of education which should prepare efficiently for the business of making his way in the world. It may also be true, of course, that the school system itself is at fault, but however that may be, it is the business of the continuation school to give the young worker a useful understanding of his new environment. This is another example of the manner in which the method and spirit of the continuation school may seep down into the traditional elementary school.

c. *Vocational guidance is modified by economic considerations.* No teacher can counsel pupils wisely as to the best vocation to follow unless there is a fair understanding of every-day economics. Books on vocational guidance are not sufficient, for the teacher is needed to interpret the economic forces that make their presence felt from day to day, and the results of his judgments must be passed along to his pupil. This is all the more necessary in these days when conditions are so unstable. The rise and fall of employment in certain industries, the changing methods of training, the manner of entrance into the industry, the degree of specialization involved—these are all changing economic factors to which the teacher must be very much alive unless vocational guidance is to lose much of its meaning.

d. *The subjects of the curriculum have economic phases.* The subject of civics, of course, has its economic aspects, and certainly the good citizen is not he who has no knowledge of elementary economics. Health is also to a degree dependent upon economics. Arithmetic involves the knowledge and use of economics in many of its applications. For instance, wages and piece-work are industrial topics which require use of arithmetic. The economic aspect will frequently provide a motive for more formal work when otherwise such a motive would be lacking.

e. *Economics is concerned with "earning a living."* The important difference between the full-time pupil and the part-time pupil is that the latter is earning a living. Economics is defined by Seager as "the social science which treats of that portion of human activity which is concerned with earning a living." Therefore, it is most

appropriate that economics should be taught in the continuation school.

Selection of subject-matter.—a. *To be taught incidentally.* Economics should be taught in the continuation school without mentioning to the pupils that there is such a thing called by that name. There should be nothing fearful or wonderful about it. It should be made an inherent part of the other subjects of the curriculum. If a topic of value to the pupils is considered essentially “economics,” and the teacher wishes to give a lesson in it, the subject-matter should be divested of all that is technical, of all terms that need explanation, and the work should be taught simply as a phase of life. Elementary school graduates may be given a little more than non-graduates but it must always be remembered that even in college economics is usually deferred to the later years, and that among adults generally there is little understanding of the subject.

b. *Economics not subject-matter but part of life.* The subject, so called, cannot be taught as pure subject-matter imposed upon the pupil as something “good for him” which he must accept. Unless the pupil can realize the value of the lesson, it is both undesirable and unprofitable. The one way out is to emphasize the functional point of view, to show to the pupil that what he is being taught means something in his life, and that a knowledge of it will make him do things differently from the manner in which he would do them if he did not have that knowledge. This can be done easily and with much more effectiveness than in any other subject, for the material is taken right out of life. In fact, this method of treatment may serve as a touchstone for the

selection of topics worth treating. If a particular topic does not exhibit any vital relation to the pupil's life, if he cannot see that it makes any difference to him, then it had better be omitted.

Methods.—a. *Viewed historically.* It is only necessary to consider economics historically as a subject of study or of thought to realize that there is no clearly defined body of knowledge which one can label economics, but that the term has been used in later years to bring together a number of social phenomena which up to the time of Adam Smith were treated separately. Moreover, there have always been and always will be controversial questions on which there is no final authority. It is not an exact science. Therefore, the teaching must not be didactic or authoritarian, but must rely upon presenting to the pupil the facts as nearly as they can be ascertained and then offering the leading opinions held regarding these facts. Where opinions differ so sharply men's critical faculties must be sharpened so that they may come to the correct conclusion.

b. *The pupil's background must be used.* While a knowledge of the pupil's background of knowledge is necessary for every good lesson, this is especially necessary in economics, for the work involves a cutting into the most intimate phases of the pupil's life. If the economics taught does not connect with the experiences of the pupil, all the benefit will be lost. If it runs too far astray, the teacher will be laughed at for his gross ignorance.

c. *Lecturing must be avoided.* Where a subject is so full of opportunity as this, the tendency will be to talk and talk and talk to the pupils. Nothing could be farther

from good method. Every device of good teaching must be brought to bear, just as if the lesson were one in arithmetic, where the result of the teaching could be measured to the fraction of one per cent.

CHAPTER X

CLASSIFICATION, GRADING, AND ADVANCEMENT

1. The Problem.

Standards of achievement must be set up.

Measurement of success is a factor in carrying out continuation school aims.

2. A System of Grading and Advancement.

The technique of building up the system.

The unit card system.

- a.* The purpose.
- b.* The value.
- c.* Specific objects.
- d.* Adherence to standards.
- e.* The regulations.
- f.* Minimum standards.
- g.* Duties of the official teacher.

3. Graduation.

Qualifications for graduation.

- a.* Attendance.
- b.* Work.
- c.* Unit cards.
- d.* Punctuality.
- e.* Conduct.
- f.* How to get the diploma.
- g.* The certificate.
- h.* Graduation exercises—a note to the pupil.

Graduation exercises—some suggestions.

I. The Problem

Standards of achievement must be set up.—The objectives of the continuation school—vocational guidance, good citizenship, happy leisure, and such other im-

ponderables—make measurement of progress not only difficult but dangerous. And yet the neglect of such evaluation leads to equally unhappy results. The continuation school is likely to veer so far away from the tradition of the full-time school that standards of achievement will be cast aside, with the inevitable sequel of hazy, purposeless, unvitalized teaching. There is much talk of the aim of the continuation school and the means used to carry out the aim, but there has been precious little checking up to find out whether there is any difference between the pupil when he enters the class-room or shop and when he leaves it. On the other hand, a rigid application of the testing methods of the full-time school will not only carry with it the drill and the drudgery of the pupil's previous school life, but will tend to obscure the aims of the school itself. Whatever method is devised to measure the result of teaching and to credit the pupil with accomplishment must strike a happy medium which will preserve all the spiritual values incident to high ideals, inspiring personal contact, and a consideration of the feeling human being, and will measure also achievement in terms of common understanding.

The provision in the California Part-time Law which prohibits setting up any minimum standard of achievement arises from the desire to imbue each individual with the idea that there is no such thing as failure, that there is always progress, whether this be fast or slow. The other idea also obtains that every one can succeed in something. The part-time school is a device for finding out what that thing is and for helping the boy or girl to attain success as fast as possible. If progress is to be

achieved, there must be some measure of it. In the first place, the nature of the human being demands it. The measuring of progress may begin with the very young child's "good ticket." If, later in his school career, he "gets all his words right" in the spelling lesson, he is simply noting progress in another way. When the task is set and an attempt is made to do it, the man or woman wants to know what the world thinks of the result. The estimate may take the form of a percentage rating, or of a mere acceptance or rejection, or of an oral "well done." Part-time pupils are just like the rest of us, and experience has shown that they are eager for approval of their efforts and for some tangible recognition of success. Offering some form of approval and recognition is followed by a quickening of effort which is in itself sufficient evidence that to offer definite credit is desirable.

The teacher is as human as the pupil. Those rare individuals who can stimulate pupils to concrete accomplishment, and at the same time keep their teaching continually on the level of lofty inspiration, may dispense with grades, ratings, and even with lesson plans. But experience shows that the best "inspirers" are those who carefully plan their lessons and can at any time measure very closely the degree to which a pupil has absorbed information, developed a habit, or learned an operation. Such a teacher is willing and anxious to rate his pupils in order to measure the efficiency of his own teaching. On the other hand, the teacher whose work is nebulous finds grading an unmitigated nuisance, and for that reason it becomes incumbent upon the administrator to demand adherence to a rating and grading system in order to protect the pupil from poor teaching and to insure his

progress at the hands of the weak teacher as well as of the strong teacher.

Measurement of success is a factor in carrying out continuation school aims.—Certain preliminaries must be considered before demanding a rating and grading system. First, upon entrance to the school has the pupil been thoroughly tested and interviewed, and have the employer and parents been consulted so that all possible weight may be given to the present and future life of the individual? And, as a result of this procedure, has the vocational counselor used the best judgment in assigning the pupil to a class? In other words, has the preparatory class functioned efficiently? If it has, the assumption is that such ratings as are given in the work which the pupil then proceeds to do are indicative of the pupil's ability in a field chosen after considerable deliberation. Failure in that field will be highly significant, success equally so. The significance of failure lies in the fact that even a thoroughgoing consideration of all the available factors in the pupil's life has not indicated the road to success, and any change of assignment must result from a review of these factors. The failure is serious in that it indicates either poor vocational counseling or a serious defect in the pupil or, perhaps, some principle in education or trait in human nature that demands recognition has not yet been discovered in its relation to this case. For the same reason success on the part of the pupil is presumptive evidence as to the desirability of continuing in that type of work. Of course, it is understood that where the aim of the vocational work is pre-vocational (trade-finding) and the method used is that of shifting pupils from trade to trade in order that they

may discover their likes and dislikes, success in any one trade does not indicate that the pupil should not try the others.

Implied in the preceding paragraph is the necessity for a flexible transfer system, flexible in the sense that it provides for transfer from class to class at any time of the year, for any valid reason. To preserve the integrity of the "validity" it may be necessary to hedge transfers about with very definite conditions. Experience confirms that this is a necessity. But when these conditions are fulfilled, the transfer should be made immediately. The pupil may be required to remain in any one class for a definite number of weeks, the teacher may be required to visit the employer and parents, and the personal approval of the principal or director may be demanded before a transfer is effected, but when these preliminaries have been attended to and the result points to the need for transfer, it should be made forthwith.

2. A System of Grading and Advancement

The technique of building up the system.—Now the attempt must be made to devise a scheme such as will meet the peculiar requirements of continuation education and of the particular school. In a small school the spirit and administrative values may be retained while much of the detail may be eliminated. Other modifications will be made where there is a less cosmopolitan population. In order to describe a practical, working scheme, and to indicate the manner in which it was evolved, and at the same time to show the underlying philosophy upon which the plan is based, the directions given to the teachers of the East Side Continuation School are herewith

given in full. The comments will make clear the local conditions giving rise to specific provisions and will explain the preliminary considerations which resulted in the definite formulation given.

"Fellow Teachers:

"Pupils have again and again asked for a recognition of their school work. For many reasons it is desirable that pupils should be advanced as they show proficiency, and that at the end of their stay in continuation school they receive a statement of what they have accomplished. The problem bristles with difficulties. It is easy to fall into a deadening formalism of credits for time serving rather than for work accomplished. The original draft of the following scheme was outlined by Miss Fitz-Patrick and Mr. Joseph. You considered it in conference. With your assistance I have revised it and re-revised it. It now looks workable, but it will be practicable only as it has your constant criticism. This you are invited to give freely. After the unit card system has been in operation for some time the final certificates will be carefully considered."

The teachers mentioned were especially capable and had shown considerable interest in this phase of administration. The demand for systematized grading came from them and others. It was insistent. The need was apparent and required satisfaction.

The unit card system.—"a. *The purpose.* A unit card is the pupil's certificate of progress and promotion. It is to his school life what his pay envelope should be to his business life—a measure of honest and skilful endeavor. It signifies that its owner has completed a

specified amount of work as outlined by his teachers and that this work, whether tangible or intangible, has his teachers' endorsement."

The unit card (illustrated in the appendix) is a small card signed by the vocational and the related subject teachers and the principal, certifying "that (name of pupil) has completed Unit (number of unit) in the (name of class) class." The cards are dated, and on the back are the names of the jobs comprising this unit. This detailed statement makes clear to employer, parent, or other interested person the particular work the pupil has accomplished.

"b. *The value.* Each unit card should be looked upon by its owner as representing a considerable amount of honest toil and acquired knowledge. It should be cherished by him as evidence of a big forward step or several small steps, in the direction of his temporary goal."

It is obvious that the value of any grading system will vary with the teacher using it. Some will use it as an incentive and others as a club. On the part of the administrator there must be continual checking up and repeated stimulation in order that there may be use but no misuse nor abuse of the scheme.

"c. *Specific objects.* The unit card system is not a panacea for all our continuation school ills, but, if properly carried out, it should at least partially accomplish the following objects:

"1. Take the place of traditional school promotion.

"2. Give credit for work actually completed and lead to a diploma on which will be fully stated what has been accomplished during the pupil's stay in continuation school.

"3. Place a premium upon thrift, obedience, punctuality, good workmanship, conduct, effort, and results.

"4. Indirectly reprimand the laggard and indifferent pupil."

These are some specific values based upon the general discussion given above.

"d. *Adherence to standards.* It is of the utmost importance that each teacher adhere closely to the standards which have been set up to govern the issuance of these cards. The slightest compromise or deviation from these standards toward a lower level will reduce all of our effort to naught."

Of course, it is in the setting up of standards and the necessity of adhering to them that the main difficulty arises. In the determination of the detailed standards which follow much thought and discussion were involved.

"e. *The regulations.* The following regulations will govern the issuance of unit cards:

"1. The normal time for completing any unit shall be twelve (12) sessions. (Wherever in any shop the particular work is such that it seems desirable to establish units of more or fewer than twelve jobs, the teacher may do so by filing the jobs with the principal and receiving permission to issue cards on the basis of that unit.)

"2. A unit card shall not be issued to any pupil who requires more than fifteen sessions to complete that unit, unless his effort has been noteworthy and the slow progress has been due to habit of mind or body for which the pupil is not responsible. He shall be given credit on his attendance record card only, with a note under 'Deficiencies' stating why the card has been withheld. The pupil shall be instructed that the issuance of a final cer-

tificate will depend entirely upon the effort shown in the later units. In other words, while a unit card may be withheld for lack of effort, the pupil may later redeem himself by putting forth greater effort thereafter. This means that if, when a pupil is ready for discharge, he has shown that he can maintain the required standards of punctuality, effort, and conduct, the teacher may then issue those unit cards that were withheld because of insufficient effort even though the work was actually completed.

"3. No pupil shall begin on a new job in either the vocational or academic class until he has finished the job in hand."

In connection with these regulations it must be remembered that the normal work for a session in the vocational class is a job, and that the jobs are grouped into units of approximately twelve jobs. It is readily apparent that the phrase "to a habit of mind or body for which the pupil is not responsible" allows the teacher considerable latitude, but if this latitude is not allowed a rigid minimum standard will be set up such as will discourage the very pupil to whom the continuation school offers opportunity.

"f. *Minimum standards.*

"1. Attendance—a pupil shall have an average attendance of ninety per cent (90%) counting from the time he begins until the time he completes a given unit. If he later makes up the excess absence, he may be given the card.

"Example: If a pupil requires fifteen (15) sessions to complete the unit and not more than seventeen (17) attendance days have elapsed, he is eligible to receive a

card. If more than seventeen days have elapsed, he shall receive no unit card. This ratio should exist throughout: 9 is to 10 as the ratio of the number of days required for the job to the number of days allowed for the job.

"Pupils are to be informed that final certificates will not be issued to them unless they have attended the equivalent of four hours a week (allowance being made for legal holidays) from the date of admission to the age-limit date until all time lost by absence has been made up. The intent and spirit of this rule is that the continuation school is the place for doing things and doing them regularly and promptly. Therefore credit will be given only when these things are completed in the required time given to them. It is incumbent upon the teachers to enforce this rule strictly and to use it continually as a positive incentive to praiseworthy effort.

"2. Punctuality—ninety per cent reckoned as for attendance.

"3. Effort—commendable, that is, worthy of praise.

"4. Conduct—honorable, that is, such that the pupil can be trusted to conduct himself properly supervised or unsupervised.

"5. Vocational work—wearable, for classes in which wearable articles are made; usable, for classes in which usable articles are made.

"6. Academic work—satisfactory."

The terms "wearable," "usable," and "satisfactory" seem vague. However, in reference to a dress, for instance, "wearable" means something very definite. If the pupil cannot or will not wear it, it is a failure. If

she is satisfied to wear it, it is rated as successful. Teacher and pupil can usually agree upon such a proposition. As to usable articles, the trade man or woman can readily decide as to whether it can be used in the trade. "Satisfactory" means that in relation to the vocational work the academic work is sufficiently well done to enable the pupil to perform the jobs in the vocational room efficiently. In practice these terms are very definite.

"g. *Duties of the official teacher.* The official teacher is responsible for the issuance of unit cards. It is his duty:

"1. To see that each pupil entitled to a unit card gets it.

"2. To record under 'Progress Record' of the attendance record card the issuance of each unit card.

"3. To sign the unit cards and send them to the non-official teacher for approval and signature. If the latter does not sign, the card cannot be issued. If the second teacher does sign, the official teacher then obtains the principal's signature. All cards to be issued during any week must be in the principal's office on Wednesday of the previous week.

"4. Before a unit card may be issued for any one unit, a set of job cards for that unit must be on file in the principal's office.

"5. Blank unit cards must be very carefully guarded so that by no possible chance will they be stolen or used illegally.

"6. Every method of enhancing the value of these cards should be used. When time is available, presentations should be made in assembly. The principal will be

glad to have especially noteworthy cases brought to his attention, and when possible, to present personally the cards in assembly or in the office."

Detailed directions follow for filling in the data on the attendance record card. These would vary, of course, with the type of record kept in any particular school or system of schools. The important points are:

1. A complete record of the progress of the pupil must be kept. When a unit card is awarded, a record of such award must be made, and the other important data, such as attendance, punctuality, and conduct, must be entered.

2. A record of vocational counsel must be kept. The advice and the result of such advice must be entered.

3. When transferring a pupil from one class to another all the data including his written work must go with him. Reports of visits to the employer and to parents must be included.

3. Graduation

Qualifications for graduation.—Obviously, satisfactory progress as measured by the award of unit cards should culminate in some significant recognition of a creditable continuation school record. This should be a diploma. The terms upon which it may be issued are indicated in the following communication to pupils:

"These are the conditions you must fulfil to graduate from the East Side Continuation School:

- "a. *Attendance.* You must be present in school *every week*. If you are so unfortunate as to be kept home by illness, death in the family, or other unavoidable cause, you will be permitted to make up this time by attending

after you become 17. But you *must make up all absences if you wish to graduate*. Every graduate must attend continuation school for at least one term (100 hours).

"b. *Work*. Your teacher has the work arranged by jobs. You must complete at least one of these jobs each session. If for any reason you fail to work as fast as this, you must convince your teacher that you have put forth your best effort. No boy or girl need fail to graduate, for *sincere, earnest effort* will be recognized, even if you cannot work as fast as another pupil. Evidence of thrift will be required. Every graduate must have been a depositor in the School Bank.

"c. *Unit cards*. Unit cards are awarded regularly for the completion of a group of jobs, usually twelve jobs. To graduate, you *must earn your unit cards regularly*, and these must show on your record when you present yourself for graduation. Be sure to impress your teacher with the fact that you are anxious for these cards and want to do all the work necessary to obtain them. Naturally, the longer you are in school the more cards you should earn. No pupil will graduate who has not earned at least two unit cards.

"d. *Punctuality*. The best pupils are never late, but we know that accidents will sometimes happen and therefore you may graduate if you are punctual ninety per cent of the time. Lateness beyond twenty minutes is absence and must be made up during class sessions.

"e. *Conduct*. You will not be allowed to graduate unless your conduct has been excellent. We expect you to act in school as the good worker and the good citizen acts everywhere. The diploma of the East Side Contin-

uation School will tell everybody who reads it that you are a good worker and a good citizen, so you must show in school that this is true.

"f. *How to get the diploma.* When you are about to become 17 and you have fulfilled all the above conditions, your official teacher will send you to the principal with the following evidences of your work:

"1. Your attendance record card with your progress record showing the unit cards you have received, your attendance, and your punctuality.

"2. The unit cards you have earned.

"3. All your written work.

"4. Samples of your vocational work.

"5. A statement from the teacher regarding your work and probable future.

"6. A letter (on 8 x 10½ paper) from yourself to me answering the following questions. Add to these any statement you wish to make as to the effect the continuation school has had upon your life. Your principal will welcome your ideas as to how to make our East Side School better and of more help to the pupils.

"a. What has the continuation school done to place you in a good job or in one better than you had before?

"b. What new ideas as to your future has the continuation school given you?

"c. In what way has the continuation school made you better in business? in the home? among your friends?

"d. What have you learned in continuation school that makes you able to do work that you could not do before?

"e. How have you been able to help others through what you have learned in continuation school?

"7. The following on a 3 x 5 card:

"Pupil's name:

"Pupil's address:

"Pupil's graduation class:

"I promise to keep in touch with the school by sending a note at least once in the school year to the principal, giving my address and telling about my position and progress.

.....

"Pupil's Name

"g. *The certificate.* If all the foregoing are satisfactory you will be given a card certifying that you are entitled to receive a diploma at the graduation exercises to be held next June.

"h. *Graduation exercises.* In June graduation exercises will be held in one of the high school auditoriums and you will be presented with a diploma stating that you have fulfilled the requirements for graduation and in detail just what you have accomplished. We make these exercises as fine as those of any school in the city. You will be proud to be a graduate of the East Side Continuation School."

Graduation exercises—some suggestions.—As pupils reach the maximum age of attendance at various times during the year they must be allowed to graduate at any time. Formal exercises may be held periodically to include all those who have qualified during a definite interval of time. To these boys and girls temporary cards are issued pending the awarding of the diploma. The exercises should be specifically designed to emphasize the

vocational character of the work and its relation to the needs of the children, the employers, and the community. They should display the accomplishments of the pupils for the benefit of various elements in the community. They should dramatize the possibilities of part-time, coördinated, vocational education.

CHAPTER XI

DISCIPLINE AND CLASS-ROOM MANAGEMENT

1. The Theory of Discipline as Applied to Continuation Schools.

Interest as related to will.

Discipline as related to order.

Vocational guidance determines class-room management.

2. Continuation School Conditions Affecting Discipline.

The conditioning factors.

a. The short-time contact.

b. The working world environment.

c. School morale.

d. Rapid turnover.

e. Characteristics of the children.

f. Circumstances of leaving school.

3. Positive Measures in Promoting Good Discipline.

Selecting teachers with personality and understanding.

Providing generous equipment.

Routinizing the more trivial acts.

Reducing time spent on records.

Preserving hygienic conditions.

Other administrative measures.

Establishing school organizations.

Devices in class management.

a. Promoting punctuality.

b. Assigning jobs and keeping a record of the work.

c. Arousing interest in work and developing class spirit.

d. Economizing in supplies.

e. Refining methods of teaching.

4. Infractions of Discipline.

Offenses for which pupils are reported to the supervisor.

Causes of poor discipline.

5. Punishment.

Disciplinary measures.

Gravity of offenses in relation to the working world environment.

Measures to be taken by the teacher.

Further positive measures.
Studying the individual.
Administrative measures.
Suspension.

6. Discipline the Result of Good Administration.

1. The Theory of Discipline as Applied to Continuation Schools

Interest as related to will.—If the teaching in the continuation school fulfils the purposes of a school, if it is vital, if it meets the needs of the pupils, and if the pupils are convinced that it does meet their needs, the problem of discipline will be reduced to a minimum. Theoretically this statement is absolutely sound, and practically it is sound in the vast majority of instances. It is practically sound in all instances except that time, physical equipment, and the exigencies of organization place limitations upon good teaching and management. Whatever poor discipline there may be gives tone to the whole school. The general problem of discipline is comprehended in all that has been said with regard to good teaching. The special problem consists in creating temporarily a “passive,” perhaps “factitious” or “artificial” interest which will capture the will of recalcitrant pupils until a “secondary passive” interest can begin to operate.

Discipline as related to order.—Good discipline is the natural accompaniment of good teaching, and good teaching is dependent in large part upon the “conditioning factors.” The pupils are compelled to come to school at a time when many, especially the over-age retarded, feel that they ought to be done with school. Some come with a smoldering and sometimes actively eruptive resentment because of their experiences in other schools or

because of loss of pay. The work of the preparatory class should and does in large part remove this feeling, along with any attendant acts of recalcitrance. However, regardless of interest or good teaching, absolutely perfect order must be maintained from the moment a pupil enters the school, and every device of the teacher must be brought into play to secure implicit obedience, the final appeal being made to the principal. The boy and the girl should be introduced to the same rigidity in the continuation school, *but* just as soon as the pupil realizes that there is no looseness of control he should be appealed to more and more on the ground that he is a worker, a responsible citizen, and almost an adult, so that there may result between teacher and pupil abundant good fellowship, *always provided that the teacher has in reserve the power to enforce immediate obedience to orders if necessary.* There must be no mistake on this point. The only real discipline is that which gives the pupil power to control himself and makes him independent of the teacher or any authority for his good conduct, and unless a teacher can develop that kind of discipline, he fails. *But* for a teacher to try to instil *self-control* in the pupil when the teacher cannot control the pupil, is futile. If the pupil lacks respect for the teacher, nothing that teacher says about the values of self-control will impress the pupil. These are truisms for full-time school management, but they need attention here, because there is easily possible a tendency to condone or palliate the misconduct of the continuation school pupil. This pupil is older, he has entered business life, he expects less restriction, and the result is that strict discipline is more difficult to establish when the pupil enters school. Be-

sides, the type of pupil is often one that is not amenable to the discipline of other agencies. Discipline must be established and maintained if the continuation school is to serve any valuable purpose.

Vocational guidance determines class-room management.—Class-room management should be given first place in the discussion of discipline. It is fundamental. Good class-room discipline is reflected in the pupil's conduct beyond the class-room walls. He carries his training throughout the school as he passes through it; it goes with him into the street, the home, and the shop. The good class-room manager will have less trouble than other teachers even though he fail in vocational guidance and trade teaching. Fundamentally, however, the problems of discipline resolve themselves, as they do in the full-time school, into the question, Is the pupil realizing his ambitions, and the school thus functioning in his present and future life? Or perhaps even more pertinently, Does the pupil feel that the school is giving him something vital to his welfare? Even though his aims be illusory and his aptitudes meager, if he thinks he is getting what he needs, he will be "good." He will adopt this attitude if there are frequent interviews, conferences between teacher and pupil, to bring about sympathetic understanding. The teacher will then act in accordance with the facts in the case. He will visit the employer, or place the pupil in another type of work, or possibly transfer him to another class. The pupil will be happy, contented, and amenable to school discipline if he is being taught the vocation he likes, if the teacher is a good manager, and if the employer does not throw obstacles

in the path of advancement because of his attendance upon continuation school.

Good management takes preëminent place in the school economy. The short-time contact, the break from the working world environment, and the rapid turnover make the effective "initiating of routine" absolutely necessary. A basic aid in establishing discipline through good management is the job instruction sheet. By use of this aid, whether the pupil be a beginner or a more advanced student, he will not be at any time at a loss for work to do in class. Individual instruction is made possible, and even when every pupil is working at a different task, instructions to each are detailed and specific. Because each pupil has work to do, the opportunities for mischief or idleness are much reduced. The routine itself is embodied in the instruction sheets; as, for example, the procedure in the preparatory class, and the instructions as to the arrangement of the paper, and as to the care and disposition of tools.

2. Continuation School Conditions Affecting Discipline

The conditioning factors.—At the outset it should be noted that probably the two most important factors in discipline are *vocational guidance* and *class-room management*. The school must meet the vocational wants of the pupils in an efficient, businesslike way. The operation of these principles becomes clear only through an understanding of the factors which condition the school, especially those which mark the difference between the continuation and the full-time school. These factors are:

a. *The short-time contact*. This makes it necessary for the teacher to establish control immediately and with-

out recourse to a gradual process such as might be used in the full-time school.

b. *The working world environment.* For forty to forty-four hours a week the pupil reacts to the discipline of industry and business, but for four to eight hours a week he must react to the discipline of the school. The school must take the cue from the pupil's occupational environment in regulating disciplinary requirements. The teacher must thoroughly appreciate the situation and decide to what extent he may accept the discipline of the employer and to what extent the teacher must modify it for the pupil's good.

c. *School morale.* "School spirit" is an important factor in the full-time school in maintaining a morale which contributes to good order and inner control. The fact that a continuation school consists of five or ten different schools, the pupils of one school having no opportunity to meet those of the others, and the other fact that it is impossible for the pupils to remain for "after-school activities," mean that in a small degree only can school pride be depended upon for the promotion of good discipline.

d. *Rapid turnover.* Pupils are being admitted and discharged all the time. They are being shifted from class to class and from session to session with great frequency. Solidarity is difficult to obtain under such conditions.

e. *Characteristics of the children.* These characteristics have been discussed at length in the chapter on the Characteristics of Part-time Pupils. Here it is necessary only to call attention to some of them and to emphasize them. Among continuation school pupils extreme vari-

ation is found, ranging from an expenditure of tremendous energy by some pupils to a minimum shown by those who are pitiaibly apathetic. Blatant egoism and a love of adventure are general. Among non-graduates the minds of children in the bodies of men and women are the rule. Directing the overplus of energy into useful channels and awakening the souls of the sleeping without a clash of wills are tasks of the teacher. Converting egoism into self-confidence and making the occupational life itself an adventure are other tasks. Enabling child minds to manage their overgrown bodies is also an important duty of the teacher. Altogether a man-size and woman-size job. Success in these tasks means good discipline; lack of success means poor discipline.

f. *Circumstances of leaving school.* The reasons for leaving school have already been enumerated. There have been suggested some of the reactions necessary to counteract the mood in which some pupils approach the continuation school. The teacher must realize the mood and then use it as an approach to corrective work. The greater interest in occupations and adult life, the desire to have and to spend more money, the sense of having failed in the full-time school or of having been forced to discontinue successful work, must be accepted for what they are worth and built upon. The cause of failure in elementary or high school must be understood and an attempt made to show the pupil how to attain success along other lines. The teacher must "sell" some kind of education to the pupil, must discover some interest upon which to build instruction, must use teaching methods that will appeal to the pupil, must command the respect and affection of the pupil, and above all must believe

that there is something good in the pupil and that perhaps others have failed to find that good. The school administration must provide for recognition of achievement not based upon uniform standard of accomplishment, and must provide classification such as will not humiliate the smaller, the younger, or the less able boys and girls.

3. Positive Measures in Promoting Good Discipline

Selecting teachers with personality and understanding.—Sympathy, firmness, courage, tact, persistence, scholarship, justice, good nature, are the familiar terms so often reiterated by supervisors of every grade and by teachers themselves. In the continuation school they are preëminently requisite. Teaching skill, class-room management, trade knowledge, and all the rest follow in the wake of the fine personality; and with young workers a fine personality sets the tone and the atmosphere in a manner that spells efficiency.

It should be impossible for a teacher not to understand the purpose of the work of the continuation school. And yet teachers in other types of schools have not sometimes understood why they were teaching or what was the significance of their work. In a new movement it is not too much to suppose that a similar lack of understanding may exist. Teachers must have kept before them continually the purposes of the continuation school and the ideals for which it stands. Reversion to type is an all too familiar phenomenon. It is astounding at times to have a teacher or a supervisor in all innocence and sincerity propose and propound a scheme which runs counter to the history and philosophy of the move-

ment. At all times the purposes and ideals must be used as touchstones for the specific schemes proposed. So, in meeting especially difficult problems, the teacher must measure his extraordinary effort, his troubles, and his tribulations against the goal he has set up for himself and his pupils.

Providing generous equipment.—Generous equipment gives rise to good or poor discipline according to the skill shown in handling it. The more articles there are to handle the more mischief to guard against; but the more there is to use profitably under direction, the less idleness there is to lead the pupil into temptation. The boy and the girl like to be doing. A varied equipment, designed to engage the interest of many types of pupils, will conduce to the best of discipline. If the furniture, the seats, the tables, the decorations differ from those in the traditional school, the pupil will receive the impression of a new kind of school, a different and possibly a more acceptable school. The pupil will not realize this consciously, but in connection with the other things that are being done for him he will sense it. In the New York City schools the pupils sit on chairs at tables arranged in the form of a hollow square with the teacher's desk on the open side. There is an atmosphere of intimacy, of confidence, and of conference. Curtains on the windows and flowers on the desk add to the attractive appearance of the rooms. Even the barest of rooms can be made attractive with a little color and—a little thought. In vocational rooms the machines and tools must approximate those in use in industry. There must be no feeling of playing at an occupation. The class must do the actual job of the shop. The building must

be planned so that the passing of classes or of individual pupils through the halls will cause the least confusion. The physical layout of the plant must be such that routine will be easily executed.

Routinizing the more trivial acts.—The supervisor is frequently called upon to react against the contention of some teachers who “feel detailed plans to be more or less unnecessary, as they prefer teaching by inspiration.” Success in the continuation school depends in part upon the careful planning of the routine accompaniments of teaching as well as of the teaching itself, if for no other reason than that the time is short and every moment is precious. Detailed planning affects discipline also. When the routine has been instituted, then, like all habit, it may be relegated to the margin of consciousness, and the immediate teaching problems brought into the focus. The simple matter of the putting away of clothing will illustrate. One teacher will give verbal instructions to each new pupil, thus taking time from teaching, while another teacher will appoint a monitor, who with written instructions will learn how to greet each new pupil, how to direct him to place his clothing, how to assign him to a seat, and how to assign the job. Experience strongly emphasizes the necessity of constantly driving home to teachers the fundamental truths of economic management. Four or even eight hours can be unconsciously frittered away in lack of attention to matters that should be reduced to routine, and there is little intellectual honesty in exalting the value of continuation education if in practice it fails to function. To see a teacher give a hygiene lesson in ten seconds, because the remainder of the time assigned to the subject was lost in marking

the roll-book earlier in the day, gives a sense of the failure of the unprepared teacher. Four hours are not too short a time to accomplish big things if those who are responsible for the education of the young worker are technicians of the first order. Continuation school teachers must be the most skilled of their craft.

Reducing time spent on records.—The large number of different pupils for whom each teacher is responsible makes necessary a large amount of clerical work by the teacher. The inept teacher either allows the records to swamp the teaching or else spends much outside time in keeping them up to date. The clever teacher will devise means for meeting the situation. For instance, one teacher will spend ten minutes marking the progress of each pupil, during or after the lesson period, while another teacher will have a class officer hand out to each pupil a progress card upon which the pupil will write the date and a statement of what he has accomplished during the period: "I wired three bells and two buttons—Job No. 6"; or, "I cut out the four sides of a box—Job No. 17." The latter teacher not only saves time, but gives the pupil either an added sense of accomplishment or, if the boy has been shirking, a deeper realization of his delinquency. The good teacher will mark papers as he passes from pupil to pupil and will not accumulate them for his spare hours. He will use the time before and after school to attend to as many items in his roll-book as possible. He will not take the time of the class to write problems on the blackboard, but will save time, space, effort, and repetition by having the work ready on mimeographed job sheets. The experience of the supervisor will indicate that the length of time spent

on clerical work in class seems to provide a mathematical index of the efficiency of the teacher. The continuation school, of all places, is not the school for the teacher who cannot keep records accurately and neatly in a minimum of time.

Preserving hygienic conditions.—Good class-room management contributes to the health of the pupil. A healthful standing and sitting posture must become a matter of routine. A demand upon the pupil for clean hands and face, clean clothes, clean hair, clean teeth, insures a better physique. Careful attention to ventilation, the adjustment of furniture, the position of shades, all of which should be routinized, means better lungs, better bones, better eyes, better skin, better boys and girls, and, incidentally, a better teacher.

Other administrative measures.—In addition to those provisions for good discipline made through the teacher certain other administrative measures may be noted. The preparatory class, when efficiently administered, is a tremendous aid to good discipline. The pupil is instructed in the aims, purposes, and general nature of the school when he first arrives. He is not merely thrown into the machine. His feelings are soothed, especially as the teacher does little class teaching but gives time to much friendly interviewing and advising. Small classes make individual teaching possible, and the personal help of the teachers keeps the pupil interested and occupied. General employer coöperation makes disciplinary trouble impossible as long as the pupil is under the jurisdiction of a coöperating employer. Finally, the master preventive is eternal vigilance on the part of the supervisor. Frequent tours of class-rooms, halls, yards, and toilets

will not only cure offenses that may be discovered, but the knowledge that there is such vigilance on the part of the administration will make the teachers themselves more vigilant and the pupils more careful.

Establishing school organizations.—In the full-time school these are obvious helps. In the part-time school they are just as valuable and effective but are more difficult to stimulate, encourage, and supervise because of the short time the pupil is in school, and because of the multiple organization, and also because of the lack of daytime leisure of the working boys and girls. Nevertheless, the organization on a small scale of school activities with pupil participation is feasible and valuable although the number, variety, and autonomy of the clubs in a full-time school may not be approached. For instance, the school bank with its coördinate thrift clubs may in large measure be conducted by the pupils. Hiking clubs may be organized for Saturday afternoons or Sundays or holidays. School clubs may be conducted in settlement houses for the various neighborhoods. Parties and dances may be conducted by the boys and girls at regular intervals. Where the club has a distinctly educational aim, such as would be the case in a civic club, part of the school time may well be given over to its activities. The specific method of administration, the regulations governing the conduct of such organizations, or the exact degree of pupil participation is of little moment compared with the spirit in which the teacher who is counseling the group conducts the activity. To derive the greatest benefit the pupils must do much for themselves, they must do it coöperatively, and they must do it intelligently. When these three conditions are ful-

filed, not only will there be a definite educational advantage to the pupils, but the problem of school and class management will be greatly reduced.

Devices in class management.—It is a well-known fact that while a young teacher with a strong personality and a fine general knowledge of the theory of teaching will ultimately succeed, he will fail at first to maintain good discipline because of a lack of familiarity with the tricks of the trade. Disasters are likely to occur when the teacher does not take such a position in the classroom that he can observe all the activities of all the pupils. The teacher also invites trouble who does not plan his work so that the brightest pupil, who works more quickly than the others, will always have some task ahead of him to keep him out of mischief. The conditions in a continuation school are such that devices are necessary at every point, and a teacher to be successful must know and be ever ready to utilize them. Some of these, roughly classified according to purpose, are suggested in the following paragraphs.

a. *Promoting punctuality.* In some shops a schedule of work is used in order that tasks in various departments may rotate and each pupil receive instruction in the problems peculiar to that department. The schedule is posted in a conspicuous position, so that the students may note their special jobs for the day and for the following week. A large number of boys desire practice at some particular work, and in the event of lateness on their scheduled day for that line of work, a boy is automatically barred from that department for the day. If lateness is repeated the following week his turn on the desired job is delayed from four to five weeks. His ab-

sence at the beginning of the period advances the next pupil on the list, and in this manner the schedule repeats itself each four or five weeks, depending on the lateness and absence. This is not a hard and fast rule. If the previous conduct and work of the late pupil warrant it, the boy is given an opportunity to fill in at the same work for another late or absent pupil. In the event of absence his opportunity is delayed for the full time of the schedule, or until his turn arrives again. If the absence is repeated he must work on some less interesting job until he shows interest enough to warrant the change. A few of the more advanced pupils are given each day some special job to produce. In the event of lateness they must work on the regular course of study.

In the home-making classes there are two kinds of jobs, housekeeping and cooking. The cooking is especially popular. To encourage punctuality the cooking jobs are given to the earliest arrivals. Girls who come late do not taste the finished products. Girls who come early are appointed to responsible tasks such as putting out supplies and giving out aprons. They also have a choice of seats.

In the sewing-room where two classes divide the use of the room during the session, a blackboard chart has been arranged showing the punctuality percentage of each session, so that rivalry has been stimulated between the two classes. An interesting book is read to the pupils who arrive before the session begins. A club has been established the membership requirements of which are regular attendance, punctuality, ownership of a bank-book, appropriate dress, and a progressive attitude toward the work.

In some classes personal notes are written to each absentee for one week on attractive correspondence cards to the effect that the teacher and other pupils missed them on that day and hope that they will be in their places the next week, for the class knows the absentees are anxious to help keep a high record in attendance and punctuality. The personal appeal is very effective.

In an academic class the teacher and pupils discuss current plays and moving pictures before the session begins.

b. *Assigning jobs and keeping a record of the work.* In the model apartment many different tasks are performed by the girls, and the efficient management of a group of twenty requires considerable skill and a knowledge of effective devices. Here the job card is adapted to the situation, detailed directions for each task being carefully outlined on cards placed in transparent waterproof envelopes. It is possible to use these cards over and over again without their being soiled.

The pupils record their daily progress on a card handed to them at the end of each session. By doing this themselves, they realize the necessity of accomplishing a definite task. They are required to write in English a brief description of what they have done, and the result is used by the academic teacher for English teaching. The teacher's time is conserved by this device, for she does not need to spend time in writing this particular record, although of course it is carefully checked up.

In press-feeding in the printing class, a record is kept of all sheets spoiled in any manner, and a comparison is made with the record of other pupils. This is done privately so that the boy will not feel humiliated. The

good feeder also has an opportunity to become the shop pressman, making the various jobs ready for the press. He prepares the press, paper, ink, ready for feeding. The incentive for accuracy in this method lies in the fact that he is allowed to continue in nominal charge of the presses as long as he continues to perform his work in a satisfactory manner.

In type-setting, a proof (printed sheet) is made of each job each day. The following week the student is given the proof with all errors marked, and with a word of praise if the work is good, or a suggestion for improvement if it is not up to standard. Very good results have proved this method to be satisfactory.

In the sewing-room the teacher keeps a record of work done at home by the pupils, and where the girl uses her own time to do a definite job, bringing the product in for inspection, the teacher gives credit for the product.

c. Arousing interest in work and developing class spirit. As in the full-time school the election of class officers, to take charge of some of the routine, gives the pupils a sense of responsibility and also enables them to absorb into the class the new pupils, of whom there is an average of one or two each session.

The writing and singing of class songs creates a sense of solidarity and a feeling that the class-room atmosphere is a pleasant one in which to live.

d. Economizing in supplies. Numerous and varied are the devices used for this purpose, and the number and variety are limited only by the number of different kinds of supplies and tools in use. A related subject teacher who has had trouble in keeping a supply of pencils lends the pencils to pupils upon the payment

of a deposit in excess of the value of the pencil. (This is in a class where the grade of mentality and probity is low.) If a boy has no money he deposits a railroad ticket, a jack-knife, a hat, or watch. By the use of this device the pencils are kept sharp and whole and are not lost. As a general rule such an elaborate system would not be necessary, but for this particular group it solved the difficulty which otherwise would have meant no work or poor work and, as a consequence, poor discipline. In the sewing-room the problem has been solved by tying spools on table-cards and counting the number of needles on each card. In another class the pupil's name is listed whenever he borrows an instrument. In another the teacher takes a written receipt. In the machine shop the usual tool check system is used.

e. Refining methods of teaching. In the main, teaching devices are those adaptations that have been used generally in full-time school. If dramatization is an effective teaching device in full-time school, it will be just as effective in part-time school. In a millinery class pupils dramatize the selling of hats in a millinery store. In commercial classes pupils learn to use the telephone by actually holding conversations over toy telephones. In the civics lesson the young people will actually register, vote, and elect their candidate. In all rooms signs such as "Don't say 'yeh' when you mean 'yes' " are effective in driving home some valuable lessons in simple English. In a typewriting class the eraser is eliminated by having the pupils mark their own errors, and having them then rewrite the line only when they have discovered their own error but rewrite the whole exercise when they have not discovered it. In an academic class silent

reading is taught by having each pupil read a different article in a current newspaper, the pupil then telling the class that particular bit of news, after the papers have been collected.

4. Infractions of Discipline

Offenses for which pupils are reported to the supervisor.—After considering the factors concerned in good discipline, it is desirable to note the various offenses which require the attention of the teacher. The following are the most common:

- Gum-chewing
- Poor posture
- Refusal to work
- Answering across the room
- Whistling in halls or in class
- Uncivil answers
- Profane language
- Strewing papers around the room
- Defacing furniture
- Stealing equipment
- Insubordination
- Wearing caps around the building or in the class-room, as at work
- Excessive leaving the room (often to confer with other boys, to gamble, and to smoke)
- Smoking (in yards or toilets)
- Cutting classes
- Repeated lateness
- Fighting
- "Gang"

With girls the offenses are much the same with some difference in emphasis. It is to be noted that while the girls' discipline is for the vast majority a much simpler problem than that of the boys, the few cases that do arise are peculiarly difficult to handle. These are cases of the wayward, irresponsible girl who is unashamed and therefore does not respond to the usual appeals.

Causes of poor discipline.—In general the causes of poor discipline are the lapses from the standards of good teaching, good class management, and good vocational guidance. More specifically, the unwilling, obstinate, and antagonistic pupil complains that he "can't learn anything" (perhaps with some slight justification in uninteresting lessons by the teacher), it "was the other fellow who caused the trouble" (perhaps due to badly planned lessons resulting in idle pupils), the "teacher has a grudge" against him (perhaps lack of tact on the part of the teacher), or "nobody does what the teacher tells him to" (perhaps accounted for by lack of decisiveness on the part of the teacher). The problem of discipline is much like that of the full-time school with certain factors emphasized. The only effective solution can come with a thorough understanding of the individual pupil. Personal interview, visit to the employer, and consideration of all the factors in the pupil's life aid in prescribing cures. The pupil who feels that he is being properly guided, who is doing school work that he likes, and who has a congenial job with possibilities of advancement cannot be a disciplinary case. This is an ideal situation the approach toward which reduces disciplinary troubles to a minimum.

5. Punishment

Disciplinary measures.—In discussing disciplinary measures it must again be emphasized that the vast majority of potential “cases” must be met before they arise, and this can be done by observing the standards of administration and instruction which have been set up throughout this volume. On the other hand, in the enthusiasm for compulsory continuation education and the supposed completeness with which the pupils are fascinated with the idea, there is in some quarters a tendency to gloss over the inevitable difficulties encountered and to advertise with a glib “We have no disciplinary cases.” A continuation school of 12,000 boys and girls, many of whom have not graduated from an elementary school, some of whom have an advanced physiological age but a low mental age, and who include practically all boys who have left probationary schools, truant schools, and protectories at the age of 16, is bound to present disciplinary cases. These must be handled individually. As they require a disproportionate amount of time and energy and tact, they figure disproportionately in any discussion of discipline. If they are not effectively and adequately handled, the discipline of the whole school suffers. There will always be some such cases, because the turnover is large and the adjustment of new pupils takes time. The test of effective school discipline is the infrequency with which a pupil becomes a “repeater” and the frequency and speed with which he adjusts himself to school conditions after breaking out.

Gravity of offenses in relation to the working world

environment.—Ingrained habits are difficult to throw off for short periods. Consider profane language, even obscene language. It is repulsive and shocking to the school teacher. And it is, in fact, repulsive and shocking. And it is to be severely condemned. But in meeting the problem of offenses it is highly important to consider the ratio of 4 to 168, the proportionate time spent in continuation school to that spent in the factory, the street, and the home. The only effective general measure for correcting evils is to create an atmosphere of decency, good manners, and good habits. It may take some time for the individual to succumb to this influence; and during the period of adjustment, provided the intentions of the pupils are good, the shock and the repulsion of the refined and cultured teacher must be absorbed by understanding. As for the use of foul, indecent language, let there be no misunderstanding. It must not be tolerated for a moment, but if the thin veneer of mannerliness has been penetrated by impatience or anger, the teacher must realize that that pupil is not a sprite of the devil, but a human being who would use better language if he had been used to hearing it, or if he had not become accustomed to using improper language. And the teacher's business is to teach him better language. A little association with unskilled workers while at their jobs is enough to sear our sensitive pedagogic souls. We need not allow ourselves to become calloused, but we can acknowledge the realities of life. It is in attaining such an understanding that continuation school teaching can become the most effective type of teaching.

Consider gum-chewing and smoking. These are habits to be eliminated from the social economy for four hours

a week, yet most working boys smoke and most working girls chew gum. Boys attempt to wear caps in the school building. Yet these boys, a great many of them errand-boys, wear caps wherever they go. And then the whistling in the halls. The whistling office-boy is an old joke. His musical pretensions are promptly squelched, but nobody objects to the whistling errand-boy. And if he is happy in continuation school, there is much to be said for whistling unless he interferes with the happiness of others. These offenses which are dealt with so summarily in the full-time school must be met in the continuation school in a spirit of sympathy and understanding. In general these "school offenses" should be handled through a comparison of the conditions both in school and in outside life which make indulgence in them undesirable.

Measures to be taken by the teacher.—Always keeping in mind the gravity of offenses in relation to the working world environment, numerous measures are to be used before reporting a case to the principal. First there come the friendly and then minatory warnings. There is the spirit of camaraderie which makes the pupil feel that he is taking part in a coöperative enterprise in which he may be called to help. The private interview is often effective, for during such interview, with skilful questioning, a hidden grievance is almost sure to be brought to the surface and adjustment is made possible. Class-room management based upon individual teaching and job instruction sheet makes the individual questioning of a pupil not only possible but part of the regular class-room procedure. The personal interest of the teacher is of more importance for success in this type of teaching than in any other. The whole technique em-

ployed must be such as will provide for it. Interest is carried to its logical conclusion in visits to employers and parents. When the teacher has a complete picture of the pupil's occupational and social life, he can plan his teaching and devise his discipline along the most profitable lines. If it is possible to make the visit before trouble arises, he has no "case" to contend with. If he makes the visit after a clash, he probably finds a cure. The policy of the administration must be such that the teacher is given prescribed time for visiting. Visits are properly attributable to vocational guidance, since effective vocational guidance is in itself a preventive of poor discipline. The weaker continuation school teacher from time to time bemoans the fact that the short-time contact, the constantly changing classes, and the varied environment of the pupils make discipline a difficult problem, especially as it removes some of the usual sanctions. However, the strong teacher sees in this contact with the employer and the home, in individual teaching, in vocational work, factors which heavily outweigh any loss incurred through a lack of the traditional aids.

Further positive measures.—The clever teacher has many devices, and one good practical device is worth more than a volume of impracticable pedagogical theory. Devices for distracting attention or avoiding the distraction of attention, devices for utilizing some of the more primitive instincts, and devices for the prevention of minor offenses are invaluable. However, when positive and negative measures seem to be ineffective, then it becomes necessary for the teacher to remember that he must be master, willy-nilly. Just the realization that "conquer he must" is often sufficient to bring about a

solution of a difficult situation. A stiffening of the backbone and a glint in the eye will produce results unexpectedly effective. When, finally, the teacher has exhausted his other means without positive effect, he must resort to his last measure: the pupil must be given over to the principal for further action.

Studying the individual.—The following quotation, taken from a continuation school circular issued to teachers, will suggest a plan of action in dealing with a refractory pupil: "The types of pupils should be carefully studied, and the teacher should be ready to appeal in turn to the various traits of the adolescent. Everyone has his or her weak points. Save your threats, your authority, and the law for your last play. Keep your temper, even when you are actually or feignedly angry. Avoid altercation before other pupils if possible. Never call names. Many cases have been lost because of that. If a case must be settled quickly, get your class at some written work and then interview the pupil quietly at the desk or in a corner of the room. Forget the immediate issue and talk to him about anything else under the sun: What business is your father in? How much does he earn? What does your mother do? Where do you work? What did you eat for breakfast? How much do you earn? How much have you in the bank? What school did you come from? What were your teachers' names? Did you have any special friend among them? And so on and so on, each answer suggesting the next question. Of course you will have known the answers to many of these questions before you ask them, but the point is that sooner or later you will happen upon something which will give you power over the pupil; meanwhile he

is bewildered and wonders what your purpose is, until you finally lead him back to the original offense which will in some manner have been the result of the facts revealed in the interview. The wilful offender is rare. He hardly exists. Every offense has back of it some explanation, sometimes reasonable, sometimes fantastic, but the offense will be repeated sooner or later unless the cause is removed. It is your business to remove it. This is not theory, for ugly looking cases have been settled satisfactorily and permanently by simply acting upon some bit of information that cropped up while quizzing the pupil upon everything from his ancestors to his last cup of coffee.”¹

Administrative measures.—The action of the principal must be determined by the measures previously taken by the teacher, and it may range in severity from a warning to haling the pupil to court on charges of incorrigibility. But it is the principal's duty to impress the pupil with the final weight of authority, and it is his job to get the pupil to conform to the standards set for him. It may be sufficient to outline vividly to the pupil the inevitable consequences of persistent ill behavior and to warn him that another offense will bring these consequences down upon his head. The old-fashioned lecture replete with suggestion as to the principal's authority may bring the pupil to terms. Consultation with the employer by mail or telephone, or even the threat of such action, is often effective. Transfer to another session, or to another teacher, or to another subject will frequently work wonders in eliminating the

¹Franklin J. Keller, *The Teacher's Problem in the Continuation School* (a mimeographed pamphlet used in the New York City schools).

pupil from the disciplinary roll. Association with familiar pals, a dislike for the teacher, or a distaste for the vocation taught may exist without the teacher's being fully aware that such is the case. Regrouping through transfer was carried to an extreme in the East Side Continuation School with unexpectedly gratifying results. From the point of view of general policy it was felt that better vocational work might be done in all classes if the teacher were entirely relieved of the necessity of dealing with disciplinary cases except on one day of the week. The one unruly boy has ever been the bane of teachers in all types of schools. Therefore teachers were directed to transfer all troublesome cases to their Tuesday classes, which were to be kept small in register. The prospect was easily one of a lively day for all concerned. The plan was carried out. On Tuesday the teacher was permitted to modify the lesson plans or the course of study in any way he saw fit. The principal and assistant principal toured the classes and in every way made themselves available to assist in discipline. The prospect did not materialize. Tuesday became the most uneventful day of the week. Concentration and specialization upon the troublesome boy had solved the problem.

Suspension.—When the warnings, admonitions, and threats of the teacher and principal fail to bring about the desired result, there is nothing to do but to suspend the pupil from school and to call the parent for an interview. Naturally, such a suspension must be supported by the authority to serve a court summons upon the parent if he fail to appear. The procedure is simple. If the parent does not come, the pupil is necessarily absent. Absence constitutes an offense for which the parent may

be summoned, whereupon the parent may have the law laid down to him both as to his child's attendance and the pupil's conduct while in school. If these measures do not bring about favorable results, then the pupil must be prosecuted in court either in person or through his parent for incorrigibility, with possible commitment to a truant school as a penalty. The New York law provides for such disposition of intractable cases, and while they are very few, such provision must be made or else those few can do incalculable harm to the discipline of the school.

6. Discipline the Result of Good Administration

The sight of a group of twenty or thirty young working boys busily engaged in various jobs in a continuation school vocational room is simple enough and to the uninitiated visitor may seem nothing extraordinary. Yet such comes only as a result of a multiplicity of carefully laid plans, effective devices, and constant application of tact and versatility. The effect of will playing upon will and emotion upon emotion, result of skill in occupations, technique in teaching, background of vocational knowledge and industrial conditions—all these in their modifications concentrate themselves upon the pupil to make him a happy and progressive worker. This chapter has emphasized some special phases of management and discipline; as a matter of fact, management and discipline are only the outward manifestations of all with which this book is concerned—the continued education of the young worker as a preparation for his present and his future.

CHAPTER XII

SOCIAL AND MORAL CARE OF THE CHILD

Why are people un- or non-social, un-, im-, or non-moral?

- a. Bad early training resulting in bad habits.
- b. A lack of training resulting in ignorance of good habits.
- c. A lack of native intelligence.
- d. An innate maliciousness.
- e. The presence of physical handicaps.

The full-time school as a social force.

The continuation school as a social center.

Social training in the continuation school.

- a. Direct teaching.
- b. Association with other workers.
- c. Class-room organizations.
- d. Assemblies.
- e. Athletics.
- f. Coördinated efforts with settlements, Y. M. C. A., etc.
- g. Retaining the contact of the individual with the community as a whole.
- h. The individual teacher.

Moral training in the continuation school.

Why are people un- or non-social, un-, im-, or non-moral?—It is not the intention to enter here into a discussion of the philosophic aspects of morality, or even its ethical or social aspects, but merely to indicate roughly some of the educational aspects which have a bearing upon the education of the young worker. Moreover, the relative importance of the effect of these forces will not be discussed, the assumption being merely that they are active forces susceptible in some measure of utilization, modification, or elimination. Some of these forces are:

a. *Bad early training resulting in bad habits.* The emphasis is upon *habit*, and therefore a lack of consciousness that the habit is *bad*. The boy or girl knows no better. The action is automatic and as a matter of fact may not have been regarded as a bad habit in the environment in which the child acquired it, and yet in the community as a whole the habit may be not only non-social but distinctly antisocial.

b. *A lack of training resulting in ignorance of good habits.* There is little difference between this and what has just been stated, except that lack of training is more likely to result in a chaotic mixture of good and bad. A special form of this occurs when the training, which in its inception may be good, stops too soon because of a broken family. The early good effects are partially lost, and the pupil drifts into ways of his own, learning good and bad and keeping some of the previous good he got by training.

c. *A lack of native intelligence.* Sheer inability to understand or to imitate the ways of others may account fully for the child's social waywardness.

d. *An innate maliciousness.* Whether this does or can exist is highly debatable and has been warmly debated. It is mentioned here for those who believe in it.

e. *The presence of physical handicaps.* Through heredity, neglect, or ignorance, children suffer from bad eyes, bad teeth, malnutrition, nervous disorders, and the like, so that their actions and reactions do not conform to the standards in their social milieu, and again there is little likelihood that either the child or the parent is fully aware of the cause or the remedy.

The full-time school as a social force.—The full-time

school can and does exert a tremendous influence upon the social life of the child through its various activities; and more and more, under the newer conception as to the place of the school in the life of the child, these phases are being given consideration. The full-time school, however, labors under handicaps from which, in the nature of the case, it cannot free itself. In the first place, this training usually breaks off too soon, especially in the case of the child who needs it most. The handicapped, the poorly trained, and the ill-nurtured children leave school at the lowest legal age and remove themselves from all influences making for a better social being, so that just when these pupils are reaching the age when they can put into practice some of the teaching of the school, they go off, and whether or not the efforts of the school function in the wider life of the adolescent and the man or the woman, is a matter of conjecture. On the other hand, the continuation school assumes that education is a continuing process, that guidance is desirable throughout the adolescent period, and while the contact in any one week is shorter, it covers a longer period of the child's life and it is continuing. Regardless of the knowledge or training acquired by the pupil, the school retains contact.

In the second place, while the full-time school is recognizing to a greater extent than ever before the necessity of making its social teaching a part of life itself and not something factitious, necessarily much of such teaching must be in terms of the child's home and school life, and not of the world of industry and business. Commonly the teacher begins the lesson with, "When you get out into life——" The continuation school

teacher says, "Now, on your job——" If the law requires attendance up to the eighteenth year, the school can influence the social reactions of the pupil for the first three or four years during which he is adjusting himself to vocational life, and the pupil can apply immediately what he has learned, the teacher can teach on the basis of what the child is experiencing, and those social forces which are vital in the life of the child can be brought to bear. In other words, there comes into play that advantage which part-time education always has over full-time education, the opportunity for thoroughgoing correlation with life itself.

The continuation school as a social center.—The social teaching of the continuation school need not be carried on within the four walls of the school building. In fact, it is desirable that much of it be effected through a utilization of other agencies. In any community are numerous social forces, either potential or active, whose scope is limited or whose efforts do not come to full fruition because they lack authority or resources. There are voluntary organizations whose activities overlap and result in lost motion or in friction. There are well-meaning individuals whose services would be of considerable benefit could these be set in a larger background of experience than the individual possesses. To the age of eighteen at least, there is need for help and guidance in other respects than the purely instructional, yet in vast numbers children cannot be reached or are reached only in a small and inconsequential way. Those that are most in need of help are the most difficult with whom to make contact. Once the child has left the full-time school the organized community has lost control except in cases

of delinquents who have committed overt acts, and even here the abnormality must be emphasized for the possibility of cure rather than the normality for the possibility of prevention. While the part-time school has not been thought of primarily as a social center but rather as a vocational guidance institution in which extension training plays an important part, it is obvious that the school does at the same time provide a wonderful opportunity for social, moral, and physical guidance, and that it is the only institution to which the unoffending boy or girl must report and to the influences of which he or she must submit. It is therefore necessary through the teacher to bring to bear upon the young worker all the good influences in the community and to keep these influences at work by a regular periodic follow-up. The continuation school can and should become a civic center in the best and most comprehensive sense of the term. This close relation in quality and time of teaching and social forces to the pupil's life is the answer to the common criticism to the effect that the continuation school contact is too short and the infrequency too great. Moreover, the influence of the continuation school is only partly expressed in the actual class-room teaching. The efficiency and success of the school depends rather upon the vocational counsel given to the pupil, the manner in which he uses it, and the social forces into contact with which the school brings the pupil to the end that he is definitely affected by them. It is only with these functions in view that a continuation school can be adequately and fairly judged.

Social training in the continuation school.—The means used for bringing the pupil into contact with

social forces are numerous and varied. They are not necessarily fixed and specific but will differ with different pupils or with different groups. The following are suggestive:

a. *Direct teaching.* This is of course the most obvious method and probably the least effective in itself. Its real value will depend upon the amount of follow-up by the teacher in the home and on the job. It includes all the formal lessons in ethics and civics. The pupil may be told what are the proper reactions to his civic and social duties, how to care for public property, what his duties and rights as an employee are, what the standards of good manners in industry are, and the like. It is appropriate to put into the form of a class lesson any topic related to home, friends, or business life, especially as specific problems arise which require solution.

b. *Association with other workers.* The mere association, on terms of pleasant endeavor for improvement along the same lines and with intelligent direction by the teacher, with other workers, perhaps engaged in the same business or more often in other industries, is of great benefit to the worker in getting an understanding of his relation to his fellow-man.

c. *Class-room organizations.* These have been mentioned under Discipline and Class-room Management. Whatever gives them a disciplinary value gives them a social value. Such organizations emphasize the value of the association noted in the preceding paragraph. They develop an orderly subordination of the individual good to the good of the whole group. They teach the worker the wholesome method of combining for offensive and defensive purposes when injustice must be fought.

d. *Assemblies*. These should be very definitely characterized by social and civic interest. Topics should be determined by the current interest of the pupils, the familiar topics of the day, and the general needs of young workers. Whenever there can be found experts in the various fields of industry, social welfare, or civic betterment, who are at the same time competent speakers before juvenile audiences, they should be brought into the school to inspire and instruct the young workers. Representatives of coöperating organizations and of employers should come in for close contact with the pupils. The pupils should participate to the extent that talent can be found. Musical selections, dramatizations, and the like promote the coöperative spirit as well as help to develop the talent itself.

e. *Athletics*. Beyond its value in the development of the physique is the encouragement of the coöperative spirit in athletics, and it is this coöperative spirit which in the young worker needs fostering to the fullest extent.

f. *Coördinated efforts with settlements, Y. M. C. A., etc.* As centers of registration for young workers, the continuation schools can do a considerable service in bringing boys and girls into contact with the best influences for good, healthful living. Without pressure and without favoritism teachers can emphasize to the pupils the value of creating happy neighborhood associations on a somewhat higher plane than is likely to result from haphazard gatherings. The school, in coöperation with settlements, Y.'s, and other social agencies, can bring forcibly to the attention of each pupil the advantages of membership in a social organization and, by persistent follow-up, can almost assure his taking advantage of the

opportunity. Coöperation of this type illustrates the function of the continuation school as a center for the coördination of the various social forces which would not function in so large a number of cases unless there were some agency to bring them into contact with the boys and girls whom they are intended to benefit. Social guidance for young workers who have left the full-time school is even more important from the point of view of the community and good citizenship than the more strictly vocational guidance, although one cannot be divorced from the other.

g. Retaining the contact of the individual with the community as a whole. Another aspect of social coöperation is that of retaining in a definite, practical, and spirited way the young worker's interest in the community. These children, as they leave the full-time school, in most cases drift off into a selfish individualism which results in good neither to themselves nor to the community. The continuation school should be to them an expression of the spirit of the people and of course will be such only if the teachers are themselves public-spirited. The school in its administration must be progressive, thoroughly awake to what is going on in the world, especially the industrial and business world, and ready to adapt itself to new conditions. While alive to the interests of employers, it must set the welfare of the individual young worker, for whom the schools have been established, above the interests of those whose bargaining power is too powerful for the young worker to combat. Unless this is done that community institution called the continuation school may function to the detriment of the pupil rather than to his advantage. It may tend simply

to confirm the disadvantages of the modern industrial system rather than to raise the workers out of it through public vocational guidance.

h. *The individual teacher.* More than in any other type of school the individual teacher means to the pupil the difference between a tremendous boon and an awful bore. Upon the teacher's innate sympathy, background of experience, and technical skill will the continuation school be judged by the pupil and ultimately by the community at large. In the smaller schools the pupil will know only one person who will be, to him, the school. In the larger schools he will never have more than two teachers at a time and may never have more than two different teachers during his whole stay. It is by these teachers that he will measure the school. Therefore, for the purposes of social as well as of every other type of guidance, it is essential that the continuation school teacher be superlatively good. There is a minimum elementary education which the community is committed to carrying on, and if the teachers doing the work are not at any time up to a desirable standard the public is likely to content itself with the thought that the school administration is doing the best it can with the available supply. Continuation education is not yet (and fortunately, in this sense) established on any such solid foundation, and the public is very likely not to content itself with anything less than abolition if reasonable expectations of success are not realized regardless of any such reasons as that the teachers are not fit to carry on the work.

Moral training in the continuation school.—In the larger sense all the activities of the continuation school

have their moral aspect, and in so far as this is kept in mind by the teacher, all the teaching and counseling may be said to constitute moral training. For the most part such training arises out of disciplined guidance under favorable conditions, which guidance would be lacking in the life of the child were the continuation school non-existent. Where the guidance is for the job, it will emphasize the morals of employment; when the guidance is in the relations of young men and young women, it will emphasize social morals; when it is guidance for citizenship, it will emphasize public morals. If morals are simply the standards of conduct that have come to be recognized as those of the community, or, in a larger sense, of the society in which the individual lives, then these morals will become through example and supervised conduct, rather than through precept, an ever-present phase of continuation school teaching.

CHAPTER XIII

SUPERVISION OF TEACHING AND THE TRAINING OF TEACHERS IN SERVICE

1. Criteria of Art.

Estimating the worth of teachers' work.

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The esthetic school.

The ethical school.

The impressionistic school.

2. Criteria of Art Applied to Teaching.

The art critic and the school critic.

Standards of the historical school applied to teaching—the teacher's intention, aim, and purpose.

The esthetic school of criticism in relation to the teacher's technique.

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1. Criteria of Art

Estimating the worth of teachers' work.—Loud have been the praises heaped upon the profession of teaching as an art embodying the highest ideals of noble endeavor, but seldom, in actual administration, are the criteria set up for artists applied in criticizing the work of teachers. Only one author has analyzed at some length the teaching process as an art and the teacher as an artist.¹ With the conviction that continuation school teaching presents problems requiring the highest type of teaching for their solution, it is worth while to consider the function of criticism in its relation to art, with specific application to the art of teaching. Robert Morss Lovett, in discussing "Criticism Past and Present,"² assumes that the history of criticism began with the history of art and that, when the artist drew his first horse in red chalk on the walls of his cave, the first critic was at his elbow. The writer pictures other cave-dwellers gathered around to see and wonder, while the critic diverted their attention to himself from the artist and his work by raising the pregnant question, "What is criticism, and what is its function at the present time?"

The historical school.—"It may be, though it is un-

¹ Herman Harrell Horne, *The Teacher as Artist*.

² Literary Supplement, *The New Republic*, October 26, 1921.

likely," continues the writer, "that the first critic was inspired chiefly by devotion to the artist, whom we may call Ab. Standing by Ab's side in the dim cave, he first tried to see what Ab had been about and then to explain it to the multitude. He envisaged the function of criticism as that of *understanding what the artist had attempted*, and of *appraising his performance in the light of this understanding*. His task was that of interpretation of the masterpiece through the personality of the artist. After the death of Ab, the function of his interpretative critic would be still more important. To scoffers who denied that the object was a horse at all, he would explain that the artist grew up on the plains, where he thought, talked and ate horse, that he loved horsemanship and had remarkable success in picking winners, in short, that given the artist's personality and environment—the man and the moment—he could have meant by his marks on the wall nothing but a horse."

The esthetic school.—"But let us suppose that the first critic had his mind focused upon the result of Ab's striving, that he *forgot the artist in the work of art*. Then his problem was to *appraise Ab's technique*, to point out wherein and why it failed to do justice to the conception. If he insisted on comparing Ab's drawing to a real horse he was a naturalistic critic; if to the eternal and universal concept of horse he was an idealist. He was naturally a superior person and therefore unpleasant, and he gave an unpleasant connotation to the term criticism. When he looked at Ab it was as a pedagogue regards a pupil, training him to produce better results. When he considered the public it was as a lecturer, explaining why the work in question did or did not

appeal to the best minds. This line of criticism might lead him into an examination of the principles of beauty and taste according to laws of psychology, when he would become a philosopher in esthetics. But he also was under the temptation to assume judicial functions. He became the judge before whom Ab was brought to be tried on technical or esthetic grounds, and who, like Francis Jeffrey, always remembered that the judge is condemned when the guilty are acquitted. But Ab might have had the satisfaction of knowing that to future generations of esthetic judges he would become a law in himself. To them his first horse would be a standard of achievement, a classic, for the first rule of classical criticism is 'To copy nature is to copy Ab.' "

The ethical school.—"But let us make the further supposition that the first critic had his mind fixed chiefly on the spectators who crowded the cave to see Ab's masterpiece. What should he say to them? Tell them of Ab's early life, and his fondness for horses and horsey associations? Most unedifying. Point out how truly and sympathetically Ab had seen and reproduced the object of his affection? But what would that do for their business prosperity or their eternal salvation? No, *an ethical* lesson or judgment was to be extracted from Ab's masterpiece. And thus the critic became the preacher. He reminded his audience that 'the horse is a vain thing for safety.' He became the moralist, anxiously inquiring of the work of art 'What will it do to the beholder? Will it leave him better or worse fitted for life here or hereafter?' He became the social philosopher, seeing in Ab's horse an attack on human standards

of living; or the patriot finding in the patient docility of the beast a seditious reference to a virtue on the part of the enemy. He also became the judge. Finding that the public reacted perversely to his warnings he questioned whether it could be trusted to see the drawing at all; and if the temperamental Ab got himself enmeshed in a scandal the critic became the censor and barred Ab's work from the walls of the cave."

The impressionistic school.—"Finally, the first critic may have been chiefly absorbed in himself, in his own sensations, impressions, reactions. He was perhaps used to finding 'every moment some form or color growing perfect in hand or face, some tone on the hills choicer than the rest,' and he may have found something on the walls of the cave which stirred his senses to the same excitement. He may have seen in Ab's crude drawing something that touched him more nearly than the object in life had done, something more real than actuality, and have felt in consequence a certain enhancement of his personality, a sense of more abundant life. He would try to express his emotion in language, to translate Ab's effort into another medium, and he would therefore become artist himself, using Ab's work as a source of material as freely as he would have used nature. To the people who objected that he talked of an Ab unrecognized by them or even by Ab himself, he would defend his procedure. 'What do I know of Ab? A few facts of life, probably contradicted by others that I don't know, and which are at best misleading. What do I care about principles of beauty and laws of esthetics? Who am I to say what is good for my fellow men? All I know are my

own sensations. Ab's horse, like other phenomena, exists for me only in them, and only from them can I honestly bear witness to his art.' ”

2. Criteria of Art Applied to Teaching

The art critic and the school critic.—In the realm of teaching the foregoing lengthy quotation has only partial relevance, but this affects the art in all its phases. However, the quotation would not have found place in a treatment of continuation schools were it not that this type of education requires a new technique of teaching and a criticism that should be the result of every possible viewpoint. Naturally, the analogy between art and school criticism should not be attempted at all points. Yet there is much that is of vital importance to the continuation school administrator. The mental and emotional attitude of the supervisor constitutes, fortunately or unfortunately, as the case may be, a most important factor in the criticism of teaching. No consideration of administration would be complete or scientific without taking this attitude into account. Hence this discussion of the data of criticism.

Standards of the historical school applied to teaching—the teacher's intention, aim, and purpose.—What is the teacher trying to do? What is his conception of part-time education? What does he believe to be the purpose of the projects in the vocational room and of the subjects related to these, as arithmetic, English, civics, and hygiene in the academic room?

What does he think his finished product will be? Has he “thought, talked, and eaten horse”?

Has he studied the young worker? Has his experience

been such as to lead him to understand the fourteen- to eighteen-year-old boy and girl?

Failure of continuation school teachers is often a failure to comprehend the purpose of the school, and the failure of the school must result if the supervisor does not in turn understand what the teacher is trying to do. Intelligent criticism and consequent improvement are impossible if there is no common ground upon which both the artist and the critic can stand. There is an even more vital application. The administrator in many cases selects his artists. He can in one sense prejudge their continuation work by a consideration of their scholastic and professional history. The teacher of academic subjects who has had all his training in the traditional school, whose habits have all been molded by fixed courses of study, grades, percentages, and standard textbooks, is much less likely to contribute to the success of the continuation school than one who has had a minimum of experience in the full-time schools but has had recent and close contact with adolescent boys and girls in the atmosphere of industry. The same holds true of the vocational teacher whose experience has been acquired in manual training instruction rather than in the trades themselves. The standards of criticism contributed by the historical school, if generously applied, must assure better selection of teachers in the beginning and higher quality of results in the end.

The esthetic school of criticism in relation to the teacher's technique.—What are the standards of method? Are they the same as those obtaining in elementary school, high school, technical school, or college? Are there standards peculiar to the continuation school? Do

they rely for the most part upon self-activity, demonstration, or lecture? Upon what psychologic and pedagogic principles do these depend for their validity? What part do self-activity, concrete presentation, lecture method and other principles and methods have in evaluating continuation school work?

In vocational rooms are there utilized the best methods of the vocational schools and of the shop? Must the technique of the continuation school shop be different from that found in either of these other places of vocational training?

Strictly speaking, this is the only type of criticism that is wholly defensible. Having in mind a desired result or project, the technique must be such that the effect is obtained most expeditiously and economically. The principles of good teaching being established, the teacher's work can be judged by them. Difficulties arise, however, because the standard of measurement is a variable unit. The yardstick is not always a yard long, and often a yardstick will not do at all. Some other unit of measurement is required, the meter, the quart, or the ounce Troy. In a comparatively new field this may be difficult to obtain. Nevertheless, the administrator must assist in finding the new standards needed. He must have large part in the development of adequate method as well as in measuring the work of teachers by and against standards already set up. For the continuation school special methods must be evolved to obtain the results desired under the conditions imposed. It is with this thought in mind that the administrator can prepare himself to lay stress upon good technique as a criterion.

Standards of the ethical school as applied to teaching.

—Does the teaching contribute to character formation? Does it lead to correct habits of thinking, feeling, and acting?

Are the principles of good morals, proper conduct, and citizenship taught?

Is the character of the teacher carried over to the pupils?

It is a common practice to defend many kinds of poor teaching on the ground that they develop character, that their moral effects are good. It is more difficult to prove the case. If the connotation of the term "ethical" be broad enough, the case for the type of criticism employed by the ethical school is valid and exclusive of such other types, but such a connotation leads, for practical purposes of supervision, to loose thinking and slipshod methods. The teacher who is continually laying stress upon "inspiration" and his "influence upon the character of the pupils" is likely to do this, perhaps unconsciously, as a cover for that kind of thinking and methods. The right purpose and good technique usually take care of character formation and good conduct. Yet in the continuation school, since vocational and moral guidance to the eighteenth year is a specific purpose, the validity of the purpose and effectiveness of the technique may well be considered in the light of their ethical bearing in so far as this may be measured.

The impressionistic school offers standards of criticism for school administrator and teacher.—Is the atmosphere of the class-room such that the impression upon the visitor is a pleasant one?

Is the type of teaching such that pleasant emotions are aroused in the supervisor?

Is the personality of the teacher a positive influence in producing in the pupils emotions of satisfaction and happiness?

Impressionism is not so much a type of criticism as it is a type of personality in the critic. It is an assumption that the reactions of the critic are, as a result of heredity or training, such that they may be trusted to register automatically a correct response to whatever stimuli may impinge upon his sense-organs. What is scientific, what is technical, what is historical, except as they have affected the personality of the critic, may be disregarded. Criticism is the critic. The only comment to be made is that so far as these reactions stand the test of time, science, technique, and ethical bearing, they are valid, but otherwise not. Which is to say that, so far as the school, and especially the continuation school, is concerned, impressionism alone is unreliable and must be supported by other types of criticism to find sanction.

3. The Data of Criticism

What are these data?—These data are various and all deserve careful consideration. The critic may watch the artist at work, he may examine the product, he may consider what other critics have to say, and finally he may take into account what the artist has to say for himself. Watching the artist at work is a favorite mode among schoolmen, for there is so much revealed. The technique is for the most part apparent, some of the product is easily available, and the general tone gives a clue to moral influence. The opportunity for impressionism is fully present and must be carefully guarded against. Observation in the class-room, in assemblies, and in other

parts of the building provides invaluable data in judging results and in furnishing suggestions for the improvement of teaching. This applies equally to other types of schools as well as to the continuation school. The standards peculiar to the continuation school are set down in other parts of this book.

Examining the products.—In a factory the product is a piece of metal or wood or other raw material fashioned in some prescribed manner so as to be useful for a particular purpose. Definite standards make it easy to appraise the finished product. The product of the artist is also definite, concrete, and well defined. There may be differences of opinion as to its artistic value, but there is no disagreement as to what it is. Not so, however, with the school. The result of school instruction is a boy or girl who in some way is a different boy or girl from the one who entered the school. But the pupil may look no different; the difference is accounted for largely in the things this pupil has learned to *do*. Therefore judgment must be passed on the basis of secondary products—something the pupil has made in the vocational room, something he has written in the academic room, something he has made or written as the result of a test. The continuation school provides further products. In the workers' school it is pertinent to ask whether the pupil has been guided into a better job, which provides (for himself) a more profitable use of his talents and aptitudes, than the job he had when he entered continuation school. It is well to ask whether he is better prepared to associate with fellow-workers and fellow-citizens, whether he has a more wholesome respect for the conventions of civilized society, and whether he fits more

easily into his working world environment. It is also pertinent to ask whether this young worker has a better body, whether his habits have become more hygienic, and whether the physical defects discovered upon his entrance to school have been removed. The standards and means of attainment of these aims are considered in other chapters.

What the other critics have to say.—No critic is competent to pass final and unqualified judgment upon any teacher. Other temperaments and other judgments are needed to counteract the effects of impressionism, conscious or unconscious, and to neutralize differences due to the different training enjoyed by the critics themselves. The administrator, if a principal, will probably not see the teacher in the same light as will assistant principals and special subject and other supervisors. The principal will see glaring faults when they affect administration, the assistant perhaps when they affect class management, the specialist in vocations when they concern trade training, and the superintendent when they affect the tone of the whole school or of the educational system itself.

What the artist has to say for himself.—Every opportunity should be given the teacher to tell what his purpose is, what standards he has in mind, what results he thinks he has achieved, what he is planning for the future. His technique and the resulting product should be considered in the light of the plan he has prepared. This may be in a course of study, in a formal lesson plan, or on a job card. The teacher may make reports of what he has done, of visits to employers and to the home, of special work undertaken for the benefit of both the school

and the pupils. The teacher may tell how he is improving himself in the service; the training or cultural courses he is taking, the systematic reading he is doing. At the end of a term or year when there is a general appraisal of services, the teacher may be asked to state in what respects he thinks he has been especially successful. Exceptional or outstanding service should be in the consciousness of the teacher as well as in the mind of the supervisor. A conscious feeling of success and a desire for its recognition may cause to follow in their wake a very real desire to attain other and greater success.

4. Vehicles for Constructive Criticism

The relation of criticism to improvement of teaching.—The improvement of teaching in continuation schools is an especially difficult problem because it is necessary not only to correct normal deficiencies, but to instil the continuation idea itself, which often involves changing previous habits and eliminating fixed ideas and this at a time when habit formation has been achieving its work more rapidly and with greater force than at any other time. Criticism must eventuate in action on the part of the teacher, or else it is at least futile. It may result in a feeling of injustice with unhappiness and dissatisfaction. If, however, it leads to greater effort and better results, the teacher eventually will be grateful. The gap between criticism, which is an inspectorial duty, and improvement of teaching, which is an administrative duty, is often wide and difficult to bridge. With some teachers the mere hint that something is wrong is sufficient to bring about its correction, but with others it requires argument, exhortation, instruction, and sometimes, unfor-

tunately, threats of deficient ratings or even dismissal. To meet the needs of varying temperaments and to approach them from as many avenues as possible requires the use of several different methods of criticism. There are the general circular of instruction, the general conference, the departmental or group conference, the individual interview, the written note, and the general or individual demonstration.

The general circular of instruction.—A prevalent weakness in the improvement of teachers in service and in the administration of schools as a whole is that there is abundant consideration of the problem of the philosophy of criticism and of the types of criticism that should be made, but there is no telling and forceful method of bringing about the results toward which such criticism is supposed to lead. For instance, the job analysis and the job instruction sheet are definite means of instruction in the continuation school. The theory can be made clear to the average intelligent teacher, or the teacher will at least assent to an understanding. The real problem arises when the teacher attempts to make the application to his specialty. Perplexity, inertia, procrastination, or some other insidious disease is likely to set in, with the result that all the lectures and exhortations prove to have been so much sound and fury. There must be definite, repeated, and forceful moves to see that fine theory finds application in effective action. Many of the administrative devices designed for this purpose are given in the chapter on Administrative Procedure, but the improvement of the class-room instruction of the teacher is treated here.

The first need of the teacher is definite, standard

directions as to how to do certain things. The instructions may arise originally in the mind of the supervisor, or may be developed by one teacher, or may be evolved from discussions in conference of all the teachers, and the result should be definitely and concisely formulated in the general circular embodying in cold type the plans and specifications upon which the class-room work is to be built. To such procedure are obvious advantages and almost as many obvious disadvantages. The circular reaches *all* teachers. Whatever good is in it is shared by all. There may be different interpretations of this printed word, but at least there can be no difference of opinion as to what the word is. Nor can it be forgotten beyond recall; it is always at hand for reference. The disadvantage is that very few pedagogical criticisms or instructions will affect all teachers equally: nor will the general circular take into account the differences in training, adaptability, and accomplishment such as will supply a background for correct interpretation. It is likely that the teacher who should take the information most to heart will be the one most likely to slight it. Then again it is very likely that while the general intent of the circular is clear, specific points will be slighted because no definite stress has been laid upon them. An emotional background is difficult to convey in print except through a fantastic use of typography or a style inappropriate for official communications. There is no objection, however, to the use of these devices in moderation.

To avoid the negative effects of these weaknesses the general circular must be followed up with individual criticisms and demonstrations. While the impetus may and should be given through general instructions, individual

encouragement or prod is often the only effective means in those instances where it is needed at all.

General conference.—Much has been said and written about teachers' conferences. They may be either the most valuable or the most wasteful of administrative devices. If they are monologues on the part of the supervisor, they are wasteful provided that the information could be offered as well in a circular. The value of the monologue is that it may be used to emotionalize the printed word. If the conferences develop into discussions on the part of the teachers, they are wasteful when they lead into byways and to matters of importance only to the few who could consider them privately. The value of the discussion is that it develops criticism. The agenda for the conference, however, must be clear, and the leader of the conference must be firm in holding the teachers to the program. The conference must culminate in some definite plan of action, and the results must be recorded for future reference by both the teachers and the supervisor. The series of conferences during a year should provide for the consideration of the major problems of administration.

The program must be one in which, as far as possible, all the teachers are interested. Otherwise attention will lag and a general restlessness will result. Each point covered must have an emotional value in addition to that presented by the fact itself. It is because this emotional appeal is so often lacking that teachers complain generally of the boring qualities of a conference. So there is nothing inherent in the conference which need make it either futile or soporific.

Group conference.—For the purpose of supplement-

ing the general conference the group conference is useful. It is especially adapted to the continuation school, as the teachers are likely to have had very different training and experiential backgrounds. Those who have spent many years in the trade but little in the class-room must be approached differently from those the major part of whose lives have been passed within scholastic walls. While the goal may be the same, the emphasis must be varied. It is difficult to present applications of pedagogic and psychological principles to trade men untrained in college and at the same time hold the interest of college-trained teachers who have had these simple principles at their finger-ends long before graduation. Therefore special conferences of homogeneous groups must be held. Various groups and combinations of groups are possible, but the most obvious are (a) men vocational teachers, (b) women vocational teachers, (c) vocational teachers in related industries, (d) vocational teachers in any one industry with the teachers of the related subjects, (e) teachers of related subjects, (f) all men teachers, and (g) all women teachers.

Individual interview.—The impersonal nature and the lack of focus in the general circular and the frequent divagations of the general conference are absent in the private interview. There is the personal touch and the opportunity for give and take. The mood of the supervisor is indicated in the smile that accompanies the criticism. The sting is salved by the evidently helpful attitude of the critic. Possible injustices are avoided by making it possible for the teacher to state conditions which may have given rise to poor work, and thus is avoided the mental unrest that results from the suppres-

sion of injured feelings. Where a common purpose exists and is understood to exist between supervisor and teacher, there are more happiness, better teaching, and more efficient pupils. The great disadvantage, especially in dealing with the inefficient inflexible teacher of the inflexible type who is not susceptible to criticism, either constructive or destructive, is that there is no permanent record of the criticism. There is nothing to fix it in the mind of the teacher, and for purposes of further criticism or perhaps of discipline there is no evidence after a considerable period that the criticism was given. To obviate these difficulties it is good tactics in school administration to use the general circular or the individually written criticism as a text for the personal interview. This procedure eliminates the disadvantages of the personal interview while preserving the advantages of the written criticism. A still further disadvantage of the interview is the difficulty in a part-time school on double session of arranging for the meeting. In theory it is simple, but considering all the other problems which keep impinging upon the time of the supervisor, the practical difficulty is great.

Written criticisms.—Some of the advantages of this type of criticism have been pointed out before. The record is permanent. There is no quibbling as to what was said and what was not said. The teacher has the criticism for future reference and may use it to check up his success or failure in improving his work as a result of the criticism. The teacher can make neither to himself nor to the supervisor the excuse that he forgot. The probabilities are that the criticism will be deliberate and temperate. Time and cold typing have a cooling prop-

erty. A permanent record is more likely to receive careful consideration than a passing remark both by the person who makes it and the person who receives it. The disadvantage of such a criticism is the result of its quality. The temperateness, the deliberateness, the permanency may easily develop into the extreme of cold formality, and cold formality begets no enthusiasm in the teacher. And thus, as the personal interview should be accompanied by the written criticism to give it permanency, the written criticism should be accompanied by the personal interview to give it warmth and humanity. The written criticism should supply the text for the private sermon. A request on the part of the supervisor for a written response to the criticism will either produce confession of wrong or will bring forth an excuse or answer that will give vindication.

Demonstration.—The psychological advantage of the demonstration as against the theoretical exposition is obvious. If every criticism could take the form of, "This is how it ought to be done; now watch me," there could be little misunderstanding on the part of the teacher as to the substance and the meaning of good method. Imitating is easier than following verbal directions. The disadvantage of the demonstration lies first in the costliness of the procedure in point of time, and, second, in the probable ineptitude of the administrator in handling the subject-matter of many of the technical subjects. The specialist in administration may well indicate the method to be used and point out to a certain extent the application, but the teaching of a lesson in detail is likely to prove baffling to one not a specialist in a trade. The administrator who possesses a wide, practical trade experi-

ence is valuable but also exceptional, for the specialist in school administration has not usually specialized also in a trade.

5. Self-criticism

Teaching standards.—There is general agreement that the work of the world should be done effectively. For the most part, teachers wish to teach well, and pupils try to be proficient in their work. If nothing else, teachers generally wish to please their supervisors. The failure comes from a disagreement as to standards. Teaching is a complex job, and when striving for efficiency along one line there is likelihood of forgetfulness along another. For the benefit of both the teacher and the supervisor the following self-survey is proposed:

AM I A GOOD CONTINUATION SCHOOL TEACHER?

1. TEACHING VOCATIONAL WORK

- a. Have I on hand a complete set of job instruction sheets for each job for each pupil?
- b. Are the pupils *working* successfully from the job instruction sheets? Or are the cards just kept on file?
- c. Have I on hand good *samples* of the product of each job and of each pupil? Or are the results on paper only?
- d. How many of my pupils have received unit certificates during the year?

2. TEACHING RELATED WORK

- a. Has each pupil an envelope containing *written work* for *each time he has attended*?
- b. Is this written work *efficient, neat*, and does it *conform* in every particular to *instructions*?
- c. Have I an academic job instruction sheet to correspond to each vocational job?
- d. Is the pupil doing on any particular day the work related to the job he did that day in the shop?

e. Is the job instruction sheet more than an exercise sheet? Are the pupils *using* these sheets successfully? Or are they stored away in a drawer?

f. Am I *teaching* the pupils every minute, either individually or through a well-considered oral presentation? Or am I lecturing or sitting at my desk or walking idly about the room?

g. Am I stimulating the initiative of pupils through *questions*? Or am I *telling* everything and eliciting nothing?

h. Do I use a quiet, conversational tone of voice? Or must I shout?

i. Am I utilizing the best in visual instruction—charts, diagrams, pictures, material, and tools from the vocational room?

3. DISCIPLINE

a. Are my pupils *wideawake* and *interested*? Or is a pupil reading a newspaper, falling asleep, gazing out of the window, chewing gum, or talking to a neighbor? In other words, is every pupil *working* and working willingly?

b. Are the shades so arranged as to mellow the light in the room, thus giving the feeling of rest and quiet? Or is the light allowed to flood the room so that the glare provokes restlessness through eye fatigue?

c. Is the floor clear of all foreign matter? Or are papers strewn upon it?

d. Are the tables and chairs unmarked? Or have they been penciled and scratched?

e. Do the pupils control themselves? Or is it impossible for me to trust them out of my sight?

f. Is my class organized? Have I class officers? Does the president sometimes take charge?

g. Am I assisting pupils outside of school hours?

h. Do my pupils show initiative?

4. APPEARANCE OF ROOM

a. Are the chairs and tables arranged uniformly?

b. Are there pictures, charts, diagrams, on the walls? Are they artistically arranged? Are they pertinent to the subjects taught in this and the related class-room?

c. Are there curtains on the windows? In what condition are these curtains?

d. Do plants, flags, or other decorations add beauty to the room?

e. Is the room free of foreign objects—coats and hats on chairs, tables, or window-ledges, bundles or other objects on tops of closets? Is the window-pole in place?

f. Is my blackboard attractive and instructive at any time a visitor may enter my room?

g. Do I have name, class, attendance on blackboard?

h. Is my desk clear of litter and neatly arranged?

i. Is my supply closet orderly?

j. Have I an artistic display of products of either vocational or related work?

k. Are the wardrobe and cabinet doors closed?

l. In what condition are cabinets and wardrobes when doors are opened?

m. What is the appearance of envelopes containing pupils' related work?

5. RECORDS

a. Have I an up-to-date cumulative record of progress completely filled out for every pupil?

b. Have I an individual record for each pupil, indicating each job completed, with a rating?

c. Have I a chart in front of the room indicating the progress of each pupil?

d. Is my roll-book neatly and accurately kept? Are changes shown in red ink? Are addresses and places of employment up-to-date? Is my roll-book properly labeled?

e. Have I the records so arranged that I can get any desired information without loss of time and energy?

6 VOCATIONAL GUIDANCE

a. What percentage of the pupils on my roll have I visited at place of employment? At the home?

b. Do I know the present job and the vocational ambition of each of my pupils, and have I counseled the pupil upon it?

c. Have I had any noteworthy results in guiding pupils vocationally?

d. Have I been successful in "selling" the continuation school idea to employers? To pupils? To parents?

7. COÖPERATION AND EXECUTIVE ABILITY

a. Am I happy in dealing with other teachers and with supervisors?

b. Am I rendering any special service to the school as a whole?

c. Do I submit required reports punctually and without second request or follow-up of supervisors?

d. Do I offer constructive suggestions?

8. ATTENDANCE AND PUNCTUALITY OF PUPILS

a. Is my work interesting enough to draw pupils to it regularly?

b. Is my work interesting enough to induce pupils to be punctual and to attend during the right session?

c. Have I reduced lateness? Do I allow my pupils to escape attendance in the late room?

9. SELF-IMPROVEMENT

a. Am I benefiting by the criticism of supervisors?

b. Am I reading and studying systematically?

6. Training Factors

Training as a basis for the selection of teachers.—In the inception of the continuation school movement it has been necessary to choose teachers upon the basis of success in other types of work (both teaching and trade) and after a consideration of the character and personality of the man or woman as revealed through a personal interview. Where there is no systematic and scientific attempt to choose competent teachers the only valid method seems to be to give every likely candidate an opportunity in the continuation school and then to wait for success or failure. This success or failure does not follow inevitably upon success in the elementary school, the high school, or the trade school. If there is any one quality which seems to be a better index of probable success than any other it is that intangible thing—character; this, plus a genuine interest in the welfare of the boy and girl. Where it has been possible to choose men and women with these qualifications, and with a knowledge of their subject-matter and an ability to im-

part it, the result has been gratifying. It is, however, only through the setting up of standards that a sound teaching corps can be built up. Beyond certain minima inherent in all good teaching, these standards are peculiar to the continuation school.

The first prerequisite to effective continuation school teaching is a thoroughgoing knowledge of the business and industrial world in so far as the selection and training of the personnel are concerned. This involves not only a conception of jobs but a realization of the qualifications the individual must possess to fill those jobs satisfactorily. The field of vocational guidance must be a familiar one to the teacher. The next prerequisite is a knowledge of those methods adapted to the training in school for the vocations. Such knowledge as this may be tested with a fair degree of accuracy through written, oral, and practical examinations. Knowledge of vocations must be accompanied by those personal characteristics which enable the teacher to meet the employer and the pupil's family in the interest of the pupil. There must be a convincing quality and a persuasiveness which will "sell" the idea of the education of the young worker. There must be an intimacy and sympathy with boys and girls such as is developed through activity in welfare organizations, social projects, and juvenile groups of various kinds. And, finally, the teacher's personality, so important a factor in the matter of directing pupils, must be of the highest quality. It is here that the stress must be placed in order to assure the continuation school of the very finest material. It is this indefinite, elusive, intangible personality that must meet the seeking but not enthusiastic pupil at the door and lead him into a new world of possibilities.

The manner and personality must be winning, convincing, helpful.

Academicism vs. trade training.—The first fault in the related subject teacher is his proneness to teach English and arithmetic for and in themselves, as he did in the elementary or the high school. Constant watching, exhortation, and instruction are needed to bring the teacher, trained for full-time work, to a realization of the shift in emphasis. It is necessary for him to become absorbed in the occupational phase and in the correlation of the so-called academic subjects with the occupation. A genuine interest in the child and consequently in the occupation in which he is engaged is the prime desideratum. The trade man or woman who has never taught cannot be successful unless he or she conceives his work in the spirit of the vocational counselor rather than in the spirit of a teacher of the trade. There is too much tendency to berate the pupil who shows no aptitude for the trade and too little tendency to make him feel that his success is partly achieved with the discovery that he lacks the aptitude, and has therefore been educated to the extent of eliminating from life at least one chance of ultimate failure. The specialist in an occupation must have his outlook broadened to include all occupations and all types of pupils.

Training in shop management.—Because of the conditions surrounding the continuation school, such as the large turnover, the changing groups, and the presence of many pupils with ill-defined vocational aims, the problem of shop management presents many difficulties, and even the ablest of trade men find all their powers of adaptation required in controlling the situation when

they first find it necessary to meet it. Those who are apparently doomed to failure, because of the chaos existing in the shop during the first days of teaching, often and usually survive the test by the application of common sense, good judgment, ingenuity, and good, old-fashioned backbone.

Training in service.—In general there are two serious problems in the training of teachers in service, and the specific measures taken to meet the situation must be considered in the light of these two problems. First, the vocational teacher is usually essentially a trade man or woman whose entire experience has been in the trade and who brings trade methods and ideals into the class-room without knowledge of class-room procedure. Even when trained in teacher-training courses he comes in with the theory of teaching rather than the practice and, regardless of age, has most of the naïveté of the young girl just out of training school. The work of the supervisor becomes that of making it possible for the teacher to convey his extensive trade knowledge to the pupils through good methods of teaching and skilful shop management. Second, the related-subject teacher is usually essentially a school-man or -woman who has become immersed in the school tradition and conceives of teaching only in terms of abstract arithmetic, English, and the like. Vocational guidance, correlation with industry, and the individual treatment of the pupil are likely to be new ideas, acceptable enough in theory, but difficult to carry out effectively in practice. Moreover, the academic teacher does not possess the technical knowledge of the vocational teacher, so that it becomes necessary that he acquire it to a sufficient extent to enable him to teach the related subject-

matter. The ideal teacher is of course he who is expert in the trade and expert in teaching, who can teach manual operations and related matter. Where such a teacher is available, he is to be treasured. The difficulty in obtaining such a teacher, and the comparative advantages and disadvantages of the one-teacher and the two-teacher plan, are discussed in the chapter on Organization.

Stimulating the vocational teacher.—There are some obvious and other not so obvious means of developing adequate planning by the good teacher of vocational subjects:

a. Urge and direct the teacher to take courses on the teaching of vocational subjects.

b. Direct the teacher to the literature on vocational education and to that on the continuation school.

c. Hold conferences with and give lectures to vocational teachers on job analyses.

d. Get the teacher to lay out a series of "jobs," lessons, or projects, as well as he can, one job at a time, if necessary.

e. On the basis of his reading, experience, courses, and lectures, have him make one job analysis. Go over it with him, taking the attitude of the pupil who understands nothing and must be shown everything. In other words, test his analysis by the touchstone of your own ignorance. Thus develop the necessity for clear, simple, concise instructions to the pupil.

f. Compare the teacher's efforts with those of other teachers.

g. Check up the teacher's efforts with the results in the shop.

h. Stimulate the teacher by holding him to the completion of a certain number of jobs by a given time.

i. Help him to put these jobs into some permanent form.

Stimulating the related subject teacher.—For the related subject teacher:

a. Emphasize day in and day out the importance of correlation with the vocational subject. Except with those general lessons indicated in the chapter on the Content and Method of Instruction, the arithmetic, English, hygiene, and civics should be related to the vocational work. For the purposes of emphasis, the supervisor may forbid uncorrelated academic work for a definite period of time.

b. For each vocational job there must be a corresponding academic job. The supervisor must go through the same steps as were necessary with the vocational teacher.

c. A definite accomplishment must be demanded periodically.

Other phases of teaching.—Those phases of teaching not comprehended in the narrow meaning of “instruction” are improved with respect to any individual teacher by the usual methods of favorable or adverse criticism following upon persistent and consistent checking up. In each of them the supervisor can use the questions which the teacher puts to himself, and base his judgment upon the resulting answers.

CHAPTER XIV

SUPERVISION OF ADMINISTRATIVE PROCEDURE

1. Plans, Specifications, and Inspections.

Success of school dependent upon planning and follow-up.

Plan of organization.

Specifications.

Follow-up and checking.

2. Special Conditions Affecting the Office Business of a Continuation School.

The continuation school presents special problems.

Large and rapid turnover.

One school is five or ten schools.

The prevocational idea.

Wrong time.

Punctuality.

Double session.

Equipment and supplies.

Attendance problems.

Reports.

Correspondence.

Telephone service.

Mimeographing.

Standard instruction sheets.

Standard reports on the progress of clerical work.

1. Plans, Specifications, and Inspections

Success of school dependent upon planning and follow-up.—Failure in school administration, even where the administrator exhibits marked ability in other respects, is due most often to a lack of management in three phases of the work. There are those who can and will plan a school according to the best principles, will lay out a thoroughly valid and workable policy, and will

desire fervently to carry it out, but who fail because they will not see the importance of arranging and executing and demanding from themselves and others those details of supervision and management which must be given attention to insure success. Less often the administrator is thoroughgoing and conscientious as to detail but lacks the larger view that gives direction and coherence to the detailed procedure. Finally, and still less frequently, there is the administrator who inspects and observes and criticizes without laying out policy or prescribing details. There are still other combinations, and they all fail unless each phase is present. In the continuation school these difficulties multiply with the complexity of the problem, with the peculiar mobility of the student body and the subject-matter, and most of all, in proportion as the necessity is greater for making clear the purpose of continuation education to teachers who have been trained in another tradition. So it is with plans, specifications, and inspections that the administrator is concerned.

Plan of organization.—In the full-time school there are two traditional methods of assignment of assistant principals, the horizontal and the vertical, the former assignment involving supervision of all pupils within certain zones of academic progress and the assignment of the assistant to all phases of school work within this group. Under this plan one assistant will be assigned to classes from the kindergarten through the third year, another from the fourth year through the sixth, and still another to the classes of the seventh and the eighth years. In many organizations the principal assumes charge of the seventh and eighth years himself. In the high school the assignments are almost always vertical, a head of a de-

partment being assigned to a subject which is taught throughout the four school years. In nearly all schools there is some combination of the two methods. In the continuation school contacts with industry, parents, social agencies of all kinds, and with other types of schools, are so frequent and the work within the school presents so many varied aspects, that the vertical assignment not only devolves upon the assistant principals but upon every teacher in the school. There are phases so important that they need specialization and at the same time so extensive that every teacher must benefit by such specialization. They require skill and technique such as can be developed only through concentration. These phases are numerous and obviously must be made an extra assignment in addition to the teaching. The sum of these assignments, including those of the assistant principals, constitute all the important phases of continuation school problems, and if they are efficiently dealt with by the teachers, the school as an organization will be successful. Efficiency depends upon the ability shown in making the detailed specifications, and the insistence and persistence with which the administrator demands results.

Specifications.—A common failing in school administration arises from the assignment of a duty to a teacher and the failure to see that the assignment is actually executed. There may be an initial spurt and consequent results for a short time, but activity will likely cease unless there is repeated stimulus. The principal should demand a periodical report setting forth the work accomplished during the previous interval, and such report should be made upon a standard form which will convey

the desired information. The advantages are twofold. First, the teacher (and the assistant principal), through the necessity of reporting, is constantly aware of the fact that certain duties are to be performed. To report, "I did nothing last week," or simply, "Progress," is a confession of failure or of dereliction. Second, the principal is enabled at all times to hold in his mind a complete picture of his school with all its changing elements and has for reference written reports by which through notes or oral communications to teachers he may make needed improvements immediately. A product of this method is the promptness with which he will learn of undesirable conditions which otherwise would not come to his notice because of the reticence with which most teachers complain. It is the old story that "what is everybody's business is nobody's business." With the teacher on watch for special features in a definite and limited field, the entire field will be covered. This procedure is simply the application of an elementary business principle to the business of administering a school. The form of the required reports will vary considerably with the type of problem handled in the continuation school, the kinds of teachers who are handling it, the size of the school, and the community in which the work is carried on. These forms, some of which are given in an appendix, have been found exceedingly useful in stimulating teachers to notable efforts in furthering the continuation education of boys and girls.

In considering the matter of supervising teaching, one of the modes of criticism suggested was the general school circular. Such a circular has, of course, wider uses than that of promoting good class-room teaching. Class-room

management, the writing of records, the reporting of attendance and pupil progress, all become part of the school routine, and school routine is a phase of administrative procedure. School routine lends itself very easily to treatment through standard instruction sheets issued periodically or on occasion to teachers. The care and precision with which such sheets are drawn up measure, provided there is adequate follow-up, the accuracy with which the routine is carried out. The instruction sheet is the school circular, and the file of such circulars is the teacher's manual. Teachers at times are prone to make light of copious written instructions, but the answer is that the advantages to both the teacher and the supervisor stand out so prominently that the instructions are followed cheerfully when they are explicit and reasonable and meant to function. However, the number of circulars will increase, and it will be necessary that the teachers keep them filed in sequence, and also that occasionally the matter contained in them be indexed for ready reference. Once a year or once a term all the routine matter should be compiled and coded for a teacher's handbook, which may be mimeographed or printed. If the loose-leaf system is used, additions and revisions may be made whenever needed.

The success of a school depends quite as much upon the good will with which the teachers perform their tasks as upon the efficiency with which they do it. To state it differently, there can be efficiency only with good will. This good will depends first of all upon the skill and justice with which the administration is carried on, but beyond this there is need of good humor and culture, culture in the broadest, most catholic, sense. The circular

provides one easy and acceptable form for spreading these influences.

Follow-up and checking.—Plans and specifications are as nothing if not checked for accomplishment. Artists, teachers, mechanics, and laborers are human, and if engaged in a large enterprise in which individual effort does not necessarily stand out, there is likely to be a let-down in effort unless systematic follow-up is the rule. Class-rooms must be visited frequently, records inspected periodically, reports read carefully, and, above all, the teacher must feel the favorable or unfavorable reaction at the earliest possible moment. The class-room visit must bring forth a criticism, oral or written; well-kept or poorly kept records must be called to the attention of the teacher; reports which indicate good or ineffective work must be commended or condemned. The method of making the criticism will vary with the circumstances, but it is always safe to write it, for the very good teacher will treasure the recorded commendation and the very poor teacher will be brought to a realization of his shortcomings when he sees them frequently in black and white, and when he knows that the written document can be filed for reference.

For the most part, the methods used will conform to good full-time school procedure. There is one special consideration, however, in the continuation school. The activities are so complex that it seems well to inspect one phase of the work throughout the school rather than to inspect all the phases at one time in the class of the teacher. The former method allows for the exercise of comparative judgment, for a fuller view of the work of

the entire school, for a more frequent visit to each room, and makes it possible to observe incidentally any conditions that may need immediate and radical treatment along any one line. More than anything else, it makes possible stimulating activity in one direction on the bases of such extended observation and of intensive study. There is less scattering of energy than would result from the other method. Of course, it is always understood that weak teachers receive special attention at all times and that superior teachers receive their full meed of praise.

2. Special Conditions Affecting the Office Business of a Continuation School

The continuation school presents special problems. —The mere routine involved in keeping a continuation school functioning at a high point of efficiency makes it necessary that the clerical force be large enough, the instructions detailed and specific enough, and the checking up frequent and rigid enough to insure a minimum of error and waste and a maximum of accuracy and speed. The clerk must be more than an excess teacher assigned to clerical work. She must be expert in those practices which prevail in business. The supervision must be expert and unremitting. The special problems must be understood, and these special problems differentiate the part-time school from the full-time school and therefore make the standards for one inapplicable to those of the other. The peculiar factors of the continuation school clerical work involve the following matters: the larger turnover, the division of the school into groups, the pre-vocational idea, wrong time attendance and making up

time, punctuality, the double session, equipment and supplies, attendance problems, reports, correspondence, telephone service, and volumes of mimeographing.

Large and rapid turnover.—To the employer a large turnover spells waste and extravagance. Since the school exists for the pupil and not the pupil for the school, the cost of a large turnover can be measured only in terms of the good received by the pupil and not in terms of what it would be if the pupil were a different kind of pupil. But while there is not necessarily any waste, there is a higher cost, which in this case is largely clerical, and which has to be reckoned with. Into the continuation school there is a constant migration of pupils. They are admitted at any time, usually the time when they decide that they have done with the full-time school. The size of the group coming to continuation school at graduation time is not large in proportion to the group leaving the full-time school during a term. On the basis of a register of 12,000 the admissions and discharges during any one week may range from 200 to 400. For each pupil a record card must be filled out and filed, the admission must be recorded in a daily ledger, the pupil must be entered in a roll-book, and often it is necessary to take much time to explain to an ignorant parent what it is all about. Incidentally, the pupil is in many instances of a type that is slow to give accurate information and from whom it must be drawn bit by bit. Moreover, it is impossible to fix, as can be done in the full-time school, the time of day when admissions may be made. The pupils must be accepted at any time of the day. Admissions must be ilarly, discharges are made continually, and, while the

actual clerical work may be concentrated during one part of the day, they must be made promptly. The card must be taken out of the active file, the date and cause of discharge must be written in, the discharge must be recorded in the roll-book, and the card refiled in the discharge file. As with other clerical activities, the complete procedure is given below in the standard instructions.

One school is five or ten schools.—The part-time feature of the continuation school divides the organization into five or ten parts, according to the number of hours the pupil must attend school and the particular method used for assigning time. So far as the pupil is concerned, the other sessions have no interest for him, as he knows nothing about the pupils in them. Therefore when circumstances arise compelling his transfer to a different session, such change takes on the nature of a transfer to another school, and the clerical procedure must be carried out with all the care required were the pupil actually going to another school. Transfers from class to class in the same session have to be made with equal care.

The prevocational idea.—Not only is the procedure for transferring bound to involve considerable work, but the purpose for which the school exists necessarily requires many transfers. Pupils first enter the preparatory class and after a few sessions are transferred to a vocational class. They are tried out in the newly assigned classes and, if not adapted to them, are transferred to others. If the employer finds the time of the session inconvenient, it is changed to suit him. If the pupil desires a type of work given only during a different session, he is transferred to that session. If for disciplinary reasons it is desirable to take him out of the session he is attending,

he is transferred. These changes are all valid and desirable. But the clerical duties involved must be recognized and provided for.

Wrong time.—For various reasons, legitimate and illegitimate, pupils attend school on sessions other than the one to which they are assigned. This involves the issuance of a pass, an entry upon a ledger, a checking up of the return of the pass by the teacher, and the entry of the attendance in the proper roll-book. The illegitimate reasons are the whim of the pupil or the employer, the desire of the pupil to meet certain pupils, or the lack of desire to meet certain teachers. The only legitimate reason is the desire to make up time lost through absence for a good cause, such as illness, death in the family, or, perhaps, a real emergency during which the employer needed the employee. The illegitimate wrong time attendance can be discouraged to a large extent through blacklisting frequent offenders, but it cannot be eliminated entirely. The policy of the school must be to encourage every pupil to make up time lost. Therefore when a pupil who has been absent for any reason whatsoever presents himself for attendance, it is inconsistent to refuse admission when he, on the face of it, is doing what he has been encouraged to do.

Punctuality.—To encourage and maintain punctuality requires recording and checking up at the central office. A pass must be issued and the name recorded. Punctuality in the continuation school is a much more difficult problem than in the full-time school. The morning session starts much earlier than does the business day of many employees. For one day in the week the pupil must break a daily habit by rising earlier and leaving

home earlier. There are other reasons which are discussed under class-room management. It is not possible even to begin to attack the problem of punctuality unless the matter of recording and checking up the offenders is carefully administered.

Double session.—If teachers and clerks are expected to be on duty for eight hours of the day, the double session presents no problems different from those of the full-time school; but if the normal number of hours for a clerk is six, the double session and the eight-hour day means that a greater number of clerks is necessary to cover the greater number of hours. The other alternative is to pay higher salaries for the longer hours, but of course, the cost increases automatically.

Equipment and supplies.—Equipment and supplies present the same problems as those of the trade school. Efficient administration necessitates keeping a current inventory, and checking carefully all requisitions and receipts. To the extent that the continuation school is fully equipped with shops and trade-rooms the clerical work arising from the handling of equipment and supplies will consume time and energy.

Attendance problems.—In the large school of a large community the problem of attendance may be the greatest single item in clerical procedure as far as the size of the clerical force is concerned. In the small school of a small community it may be non-existent. If each absence is followed up by an attendance officer, and the reports required for the use of attendance officers must contain a number of data, the labor involved is very considerable. Accuracy is essential, as an error may result in the haling of a pupil to court on a false record.

Reports.—The small average size of class and the large number of sessions make it necessary to keep reports in more detail than in the full-time school.

Correspondence.—The continuation school is in continual contact with the world of business. Not only is it necessary to make individual adjustments for pupils, but the correlation of the work in school to the job to be done outside makes the maintenance of closest relations highly desirable. This requires a large amount of correspondence. Letters must also be written to social agencies, public health agencies, other city departments, and prominent people. There must be constant intercourse, and for the most part, as far as the principal is concerned, this must be carried on by mail. Written criticisms to teachers, standard instructions for teachers, communications to teachers on numerous topics, will all fall to the lot of the confidential correspondence clerk. They constitute an important phase of continuation school administration.

Telephone service.—What has been said of correspondence applies to the telephone, which consumes even more time than correspondence. Employers, parents, pupils, social agencies, public officials, contractors, are continually on the wire to make adjustments of various kinds, most of them legitimate. The service must be immediate, intelligent, and courteous. The voice on the telephone gives tone to the whole school and to a large extent makes its reputation.

Mimeographing.—The preparation of job sheets, lesson plans, outlines, circulars, and the like keeps the mimeograph constantly in service, and adequate clerical help for making stencils and operating the mimeograph and

mimeoscope is necessary. Pupil help may be utilized to some very limited extent, but expert supervision is always necessary.

Standard instruction sheets.—Job analysis can and should be applied to jobs within the school as well as to jobs taught for use outside the school. The work of the clerks offers an excellent opportunity for such application. There are distinct advantages. The operations themselves are made clear to the clerk doing the work. The procedure is standardized, so that one clerk may be relieved by another, the place of an absent clerk may be taken at a moment's notice, and clerks may rotate from one job to another so as to become familiar with all. The talents of the various clerks in performing the various duties may be discovered, and more than that, the morale of the force may be maintained through a feeling that in the long run each one is sharing the unpleasant as well as the pleasant and more desirable clerical duties. The standard instructions insure greater accuracy than would verbal instructions, and there can be no difference of opinion as to what the instructions really were. The sheets have proved effective.

Standard reports on the progress of clerical work.—As with instructions given to teachers, there is no assurance that they are being followed, that the work is progressing efficiently, and that it is up-to-date unless there is a periodic checking up through observation or through reports. Such a check is provided for in the report of the teacher assigned to the supervision of clerical procedure.

CHAPTER XV

THE SUBNORMAL JUVENILE WORKER

1. Subnormality in Relation to Continuation School Aims and Standards.

The continuation school must help all types of pupils.
Criteria of normality.

2. Possible Measures to Be Taken with Subnormal Pupils.

A summary of continuation school measures.

Promoting physical welfare.

Discovery of aptitudes.

Placement.

Coördination.

Training in vocational work.

1. Subnormality in Relation to Continuation School Aims and Standards

The continuation school must help all types of pupils.
—If continued education means the “removal of deficiencies persisting after the completion of the compulsory period in the full-time school” (and this thought is not by any means as rare as it should be), the answer is obviously that the continuation school can do nothing. In four hours a week for two or three or even four years the mental defective will not learn the arithmetic, the reading, and the writing that he failed to acquire during twenty-five hours a week for seven or eight years. There is a strong presumption that the damage done in the process would be greater than the benefit derived. But if, on the other hand, the continuation school is con-

sidered in its broadest aspect, as an agency for adjustment of the young worker to his vocational and social environment, there is every reason to believe that in relation to his future welfare and happiness the subnormal child may receive just as much help as the normal pupil, if not more. Whereas with the latter the training may be a matter of better or worse, with the mental defective it may spell the difference between comfort and disaster.¹

Criteria of normality.—Consider for a moment the standards by which the defective is judged. The pedagogical criterion is that arising from the pupil's ability to adapt himself to the school environment, the success with which he masters the three R's and retains such information as is comprehended in what is called history and geography. The medical criterion is based upon those organic or functional disturbances which directly or indirectly affect the brain and nervous system, and therefore determine mentality. The psychological criterion sets up standard mental reactions drawn from every-day life and, through scientifically prepared tests, determines the individual's mental status. The social-economic criterion is concerned with the pupil's adaptation to the larger environment, with his ability to fit into the social, commercial, or industrial structure, and with his ability to make a living.

From what has been said of the function of part-time education it is obvious that the prime consideration for the juvenile worker is his adjustment to life and that success or failure of the school to fulfil its purpose must be

¹ The material in this chapter is adapted from a report of Mr. Jacob M. Richman on his work with backward and mentally defective pupils in the East Side Continuation School.

judged by the social-economic criterion. In so far as the traditional school subjects can contribute to social-economic efficiency the pedagogical criterion will be useful. In so far as a defective body militates against productivity the medical criterion will be of service. In so far as psychological tests truly find a counterpart in the life of the child the psychological criterion must be considered. The continuation school is not concerned with the problem of making the pupil, defective or otherwise, conform to any previously conceived curriculum, to raise him to the level of any predetermined standards of minimum achievement, all of which would inevitably require more time than the continuation school could ever hope to give to the pupil. It is vitally concerned, however, with the problem of putting the juvenile worker on his occupational feet, and therefore it must do within the four walls of the school, or through other social agencies, or through the supervision of employment, those things which will solve that problem. The teacher must become at one time responsible social worker, father, mother, friend, counselor, doctor, nurse, and big brother of the child.

2. Possible Measures to Be Taken with Subnormal Pupils

A summary of continuation school measures.—Experience with a large number of the defectives who come to a continuation school confirms much that theoretical consideration indicates as appropriate treatment. Briefly it is this:

a. The school can improve and maintain the physical welfare of the child. This will involve:

1. Discovering physical defects.
2. Removing or causing the removal of these defects.
3. Giving instruction in hygiene.
4. Conducting physical training exercises and games.

b. The school can discover whatever vocational or mental aptitudes the pupil may have.

c. The school can place the pupil on the right job and follow him up while he works at it.

d. The school can, through visits to the home and place of employment, bring about a better understanding of the pupil's characteristics and thereby improve his social environment. Through its contact with all the mental defectives within the continuation school age limits who are not in the full-time school, the school can urge and often effect the commitment to institutions of those children who are a menace to society or whose welfare would be better served by continual and immediate supervision.

e. The school can train the pupil in some simple vocational work, and can teach whatever simple academic work is easily absorbed by the pupils.

In the foregoing nothing more has been stated than the aims of the continuation school for *all* pupils. However, the statement has been made with emphasis upon those phases which are secondary (at least in so far as time and effort on the part of the teacher are concerned) with the normal pupil, all of which brings once more into prominence the fact that the continuation school must deal with the individual and give him what he wants and needs. Experience with a large number of mental defectives in the continuation school has shown that these aims are practical and that much good can be accomplished. The defectives have ranged from the low-grade "idiot"

to the high-grade "moron," from those who are utterly helpless and could not do so much as sell a newspaper or give change, to those who have developed a fair amount of skill in mechanical work. In tests the lowest intelligence quotient has been 41 and the highest 69, with an occasional 20 drifting in. With these poorest, needless to say, practically nothing can be done. These pupils have usually attended elementary school for some months beyond the 16-year compulsory limit, the average age being 16 years and 7 months, with very few advanced beyond the mental age of 6. To adjust a 6 year old to a world of men and women presents an interesting but very difficult problem.

Promoting physical welfare.—The first step in promoting physical welfare is examination. This reveals a prevalence of dirty and decayed teeth, acne, diseased and enlarged tonsils, poor vision, poor hearing, endocarditis, anemia, adenoids, curvature and other defects of the spine, and various speech defects. In many cases the first and most important treatment is the removal of physical defects. The teacher's work is to insist upon medical treatment, to make the visits necessary to obtain co-operation of parents, and to follow up until the desired results are obtained. The instruction in hygiene, especially that relating to dirty skin, acne or blackheads, dirty teeth, dirty ears, and soiled clothing, must be accompanied by individual instruction and a follow-up to assure improvement along these lines.

The normal as well as the subnormal pupil is in need of all the benefits that may be derived from exercise of the body. Time is the limiting factor, so that the amount of exercise possible within school hours is very little.

However, with the subnormals the development of the body is so important and the academic instruction so unimportant relatively, that at least a half-hour of a four-hour session can be devoted to games or formal exercises.

Speech defects are common among subnormal children. Three types of children with these nervous defects predominate:

a. Those who are absolutely inarticulate, and very difficult to understand, and who utter mere syllables.

b. Those who speak in phrases ("gone to hospital," "took my hat").

c. Those who utter incoherent statements and are not responsive to questions. This is not strictly a speech defect, but is a speech manifestation of a disordered mind.

Among these pupils are, of course, many stutterers, stammerers, and lispsers. In all cases the pupils are sent to speech defect clinics, and attendance upon these clinics is followed up. Communities will vary tremendously in their resources for the treatment of speech defects, or, for that matter, of any mental or physical defects. Upon the degree to which the teacher taps the existing resources or creates new ones will the success of the work depend. For instance, if in a small town the problem of speech defects has never been attacked, the teacher will canvass the resident physicians with a view to stimulating one of them to study it. Incidentally, the movement toward "group medicine" in such communities will aid in bringing about such specialization.

Summarized, the duties of the teacher with respect to the health of the subnormal pupil are (1) following up the defects disclosed on medical and hygienic inspection,

(2) seeing that the pupil attends the hospital or dispensary when necessary, (3) visiting the family physician to arrange for operations or other treatment, (4) seeing that pupils attend speech defect clinics, (5) giving hygienic inspections, talks, and instructions, and (6) conducting physical training exercises and games.

Discovery of aptitudes.—While for every child, and especially the defective, the discovery of aptitudes is of prime importance, it is generally assumed that by the time the child is 16 years of age whatever ability resides in him will have been pretty well disclosed. Practically, however, such an assumption is unjustified. If, under the supervision of one teacher, the pupil is tried out in the various activities, there comes to light ability which would not, on a priori grounds, be suspected. Enough subnormal pupils succeed in various types of vocational work to make it a valuable part of the procedure to give every pupil some opportunity to demonstrate his fitness to pursue it. Those who have been designated as subnormal have succeeded in wood-working, auto mechanics, machine shop practice, printing, garment design, shop drawing, electric wiring, and commercial work. The number of these is small in comparison with the larger number who must continue in unskilled occupations, but every effort to sift the more able out of the mass of defectives is justified.

Where the standard intelligence tests have not been given previously to the pupil, such tests should be given when he is admitted to the continuation school. While the value of such tests is a fruitful source of discussion, their twofold value for vocational guidance purposes has been fairly well established. They indicate for the indi-

vidual the range of intelligence within which fall the jobs which the pupil is capable of filling. Second, the manner in which the pupil responds to the test, his reactions to the instructions, and the variation in his answers to the various types of questions, point to characteristics which are valuable guides to vocations. For this reason the individual test, as the Terman, should by all means be given to the pupil who through a group test or other means gives evidence of subnormality.

Placement.—Obviously, the most perplexing problem concerning the mental defective is that of finding a suitable and remunerative job. Often he is a burden and impossible to please. Pupils of this type are of the lowest grade. They are incapable of doing either manual work or academic work, and in most cases their very appearance forbids their employment. Placement is next to impossible, and notwithstanding the efforts of parents, friends, teacher, and other agencies, they continue unemployed. Whether the "subsidized shop" or an institution is the answer, is debatable, but while waiting for some solution the continued supervision of this group by use of such methods as the continuation school is able to employ is of marked benefit to the child.

An examination of the records of employment bureaus indicates that subnormal boys and men are engaged as follows: telegraph messenger, helper on a wagon, delivery-boy, errand-boy, peddler, newsboy, work in shoe factory (heels), mending shoes, operator on machine, helper in tailor's shop, helper to father in painting business, helper to father in mineral waters store, marble polisher's helper, gardener's helper, helper in father's fruit store, helper in box factory, porter, watching ticket-box in motion-picture

house, bootblack, pin-boy in bowling-alley, carrier for clothier, pulling threads in a tailor's shop, pasting, work in soap factory, helper in wall-paper factory, hat-boy in club-house, playing violin, piano factory work, soldering jewelry, coil winding, soldering, screw machine (hardware), pasting labels on tinware, selecting mica, painting dolls, stamping pencils, bundling tickets for printer, work in flag factory (nailing flags to sticks), drill press, book-binding, counting buttons, elevator operator, elevator and switchboard operator in apartment, pasting boxes and jewelry cases, putting sugar on tins in sugar refinery. The kind of job which the defective can fill and experience in attempting to train him for skilled jobs indicate that the function of the continuation school is in only a very limited sense to train him for particular jobs. It is rather to place the pupil in a job which makes very meager demands upon intelligence and then to continue to supervise him on the job.

Coördination.—As has been said, the continuation school, in a general way, does for the subnormal child just what it does for the normal pupil. On the basis of the discovery of aptitudes or deficiencies it lays out a vocational program and then helps the child to carry it out. So visits to the employer will be made for the purpose of establishing an atmosphere of understanding and sympathy for the child, to make available for the employer whatever information has been obtained in school, and to learn the extent to which the pupil's meager ability may be utilized in that business or industry. For the defective the emphasis is upon the adjustment of human relations rather than upon the technique of the operations performed.

Even though the pupil will have had from six to ten years of teaching in the full-time school, this is not presumptive evidence that every social or civic agency has been brought into contact with the problem. If the child should be in an institution, or in a hospital, or on a farm, or in any other place than in continuation school and on the job, it is the duty of the teacher to bring about, as far as he is able, such a placement. In fact, it is entirely conceivable that in many cases with this type of pupil the work of the school may be carried on almost entirely outside the four walls of the school building. Therefore, in its aspect of providing for the needs of the subnormal pupils the continuation school is in an added sense an instrument for the coördination of social, civic, and industrial agencies in their reaction upon the young worker.

Training in vocational work.—As a background for considering the possibilities of training in the continuation school the following excerpts from reports of the Vineland Training School for Mental Defectives are illuminating: "There is no reason to suppose that because a child has failed to assimilate a generalized academic training, he is going to profit by an equally generalized manual training. Defectives vary in their abilities for manual work as much as they do in their capacities for scholastic work. Woodwork is not suited to every boy nor needlework to every girl. The best reason for giving the defective manual training is that it may fit him with a practical occupation in after life. But this reason only holds good provided it can be shown that the defective does follow in after life the occupation for which he has been trained. . . . The demand for carpenters, cabinet-

makers, toy-makers is small. . . . Mental defectives are unable to assume responsibility and exercise planning capacity. Woodwork must be regarded as hobby work because the industrial field provides so few opportunities." The case is cited of a boy whose mental age was 7, who made a Navajo blanket by working an hour a day, five days a week for five months. A year later he was set to driving a two-horse team where the value of the work done in five hours was equal to that of five months of blanket weaving. "Boys dismissed from Vineland after years of farm training have earned far better wages by riveting in shipyards or screwing up packing cases. . . . To develop in a defective an ability which he never puts to practical use is to uncover one talent which might as well lie buried with the other nine. . . . A defective is a defective and is not to be made into a competent self-supporting workman in a skilled trade."

This experience tallies closely with that of the continuation school. The few higher grade pupils respond to real vocational training. For the others vocational training must be rather a drill in those general virtues common to all types of work—steadiness, application, loyalty, good deportment, civility, proper dress, and the like. In these respects the defective is most likely to be lacking, whereas they are just as likely to constitute his sole stock in trade. However, it must again be emphasized that every pupil should be received in continuation school without prejudice as to his future, that he should be given every opportunity to prove his worth, and that only after a thoroughgoing consideration of the results of tests and try-outs should he be relegated to the ranks of the unskilled.

As an indication of the possibilities of educating the subnormal child for satisfactory work in industry, the results of an experiment may be noted.² "The object of the study was to discover: (1) what types of subnormal children could be trained to best advantage; (2) the range of work which they could learn to do; (3) how much they could earn by their work if paid on the same basis as normal workers; (4) how the cost involved in training and utilizing subnormal workers compared with similar costs incurred with normal workers." The results showed (1) that many subnormal people were already satisfactorily engaged in some branch of industry; (2) that nearly all those employed for this experiment, even though of a distinctly low-grade type, had the capacity to learn simple factory tasks although their ability varied widely; (3) they were able to earn at least two thirds as much as normal employees; (4) their behavior was good; (5) they were painstaking and accurate; (6) they required special supervision; (7) the experiment was too costly for the company to continue on a commercial basis."

² Henry C. Link, *Education and Industry*, Macmillan Co., 1923, p. 214.

APPENDIX

APPENDIX A

THE LITERATURE OF PART-TIME EDUCATION

An Annotated Bibliography for Administrators and Teachers

The literature of the part-time school is extensive but widely scattered and for the most part not written primarily for the part-time school. Because the continuation school combines the functions of vocational guidance, vocational training, continued academic teaching, and placement in industry, the principal sources of technical information are found under these headings. Only two or three volumes deal exclusively with compulsory day continuation schools. The remainder of the special literature is spread over a considerable number of pamphlets published by the United States Government, by state departments of education, city boards of education, or research departments of universities.

The titles given below are not all-inclusive but do point out all those publications which the writer believes should be at the command of the part-time administrator if the schools under his or her supervision are to be administered successfully. The notes indicate their relative importance. A strictly alphabetical arrangement has been deviated from to bring certain volumes into prominence.

I. Bibliographies

UNIVERSITY OF THE STATE OF NEW YORK. *Bulletin No. 746, New York State Library Bulletin 71*. A selected list of books, pamphlets, and magazine articles on part-time education. 1921.

UNITED STATES FEDERAL BOARD FOR VOCATIONAL EDUCATION. *Bibliography on vocational guidance; a selected list of vocational guidance references for teachers*. Bulletin No. 66. 1921.

Very full. Contains copious notes on the more important books.

STATE OF NEW JERSEY DEPARTMENT OF PUBLIC INSTRUCTION. *Bibliography of industrial arts publications*. 1921.

Numerous references are given under these principal headings: General, Art, Curricula, Drawing, Electricity, English, Industrial Mathematics, Junior High School, Masonry, Metalworking, Photography, Printing, Surveys, Woodworking.

ALLEN, FREDERICK J. *A guide to the study of occupations; a selected critical bibliography of the common occupations with specific references for their study*. Cambridge University Press, 1921.

As the occupations are alphabetically arranged, the references for any particular occupation may be readily found.

Additional bibliographies may be found in connection with other matter in these pamphlets mentioned below: Pennsylvania Courses of Study for Continuation Schools, the United States Bureau of Education Bulletin on Vocational Guidance by Ryan, and the four Pamphlets by Furney and others on Unit Instruction Sheets, Industrial, Commercial, and Home-making Subjects.

II. Vocational Education

The activities of the part-time school focus upon the present or future occupation of the pupil. The school must therefore utilize the best thought on vocational education.

SNEDDEN, DAVID. *Vocational Education*. New York, The Macmillan Co., 1920.

A masterly, thoughtful, critical, forward-looking treatment of the various phases of vocational education. Not only does Dr. Snedden give a picture of present practices, but he outlines his conception of the future of this type of education. The book is basic to an understanding of the continuation school.

CARLTON, FRANK T. *Education and Industrial Evolution*. New York, The Macmillan Co., 1908.

COOLEY, EDWIN G. *Vocational Education in Europe*. Chicago, Commercial Club of Chicago, 1915.

Contains a full description of the pre-war German continuation schools. Recommends the reestablishment of the apprenticeship system in this country through day continuation schools.

DEAN, ARTHUR D. *Our Schools in War-time—and After*. New York, Ginn & Co., 1918.

A prognosis of vocational education on the basis of the adaptation of the curricula of the schools to war needs.

DEAN, ARTHUR D. *The Worker and the State; a Study of Education for Industrial Workers*. New York, The Century Co., 1910.

Considers the specific changes which must be made to adapt education to new industrial conditions and weighs the advantages and disadvantages of the old apprenticeship system.

DOOLEY, WILLIAM H. *Industrial Education, Principles and Methods of*. Boston, Houghton Mifflin Co., 1919.

GILLETTE, JOHN M. *Vocational Education*. New York, American Book Co., 1910.

Lays down the thesis that in order to function education must be specialized to meet the needs of the community and the individual, and that the core of instruction must be vocational.

GLEASON, ARTHUR. *Workers' Education*. New York Bureau of Industrial Research, 1921.

An account of public and private attempts in the United States and foreign countries to provide the adult worker with technical and cultural education. Valuable as an indication of what the workers themselves want.

HILL, DAVID S. *Introduction to Vocational Education: a Statement of Facts and Principles Related to the Vocational Aspects of Educa-*

tion below College Grade. New York, The Macmillan Co., 1920.
An excellent statement of current practice, with supporting facts and figures. Full bibliographies for each type of vocational education.

KELLY, ROY WILLMARTH. *Training Industrial Workers.* New York, The Ronald Press, 1920.

A thoroughgoing survey of methods used in industry to produce efficient workers, with a consideration of the applications to be made in public schools toward the same end. Deserves careful reading.

LAPP AND MOTE. *Learning to Earn: a Plea and a Plan for Vocational Education.* Indianapolis, The Bobbs-Merrill Co., 1915.

LEAKE, ALBERT H. *Industrial Education.* Boston, Houghton Mifflin Co., 1913.

Considers the various aspects of the problem; the revitalization of the elementary school; the status of manual training; the organization and management of new types of school; evening and continuation schools; apprenticeship; and vocational guidance.

LEAVITT AND BROWN. *Prevocational Education.* Boston, Houghton Mifflin Co., 1915.

Considers the various aspects of prevocational training and try-out courses.

LEAVITT, FRANK M. *Examples of Industrial Education.* New York, Ginn & Co., 1912.

LINK, HENRY C. *Education and Industry.* New York, The Macmillan Co., 1923.

LUTZ, R. R. *Wage Earning and Education.* (A section of the Cleveland Education Survey.) 1916.

MAROT, HELEN. *The Creative Impulse in Industry.* New York, E. P. Dutton & Co., 1918.

A stimulating discussion of the relation of specialization in industry to the desire on the part of the individual to produce. The author repeatedly speaks of creativeness as an adventure. A most valuable touchstone in the formulation of courses of study and in the vocational guidance of young workers.

MORRIS, J. V. *Employee Training: a Study of Education and Training Departments in Various Corporations.* McGraw-Hill Book Co., Inc., 1921.

ROBISON, EMILY, compiler. *Vocational Education.* Second and revised edition, by Julia E. Johnson. New York, The H. W. Wilson Co., 1921.

A collection of articles on vocational education by various authors. They deal with general principles and controversial points rather than with specific practice.

SCHNEIDER, HERMAN. *Education for Industrial Workers.* Yonkers, World Book Co., 1915.

Is especially concerned with the coöperative type of education. Compares the advantages of the coöperative and the continuation plans. Distinguishes between the "energizing" and "enervating" types of job.

SMITH, HARRY BRADLEY. *Establishing Industrial Schools*. Boston, Houghton Mifflin Co., 1916.

A discussion of the practical problems involved in organizing and maintaining industrial schools.

TAYLOR, JOSEPH S. *A Handbook of Vocational Education*. New York, The Macmillan Co., 1914.

NATIONAL SOCIETY FOR VOCATIONAL EDUCATION. Proceedings and bulletins. New York, 1906 to date.

These publications present a good picture of the vocational education movement during the years covered.

ASSOCIATION OF CORPORATION SCHOOLS. Proceedings and bulletins. New York, 1913 to date.

These publications present the same picture from the point of view of the employer.

FEDERAL BOARD FOR VOCATIONAL EDUCATION. Washington, D. C. While a list of all available board publications may be found in any one of the bulletins, it is reprinted here for the convenience of the reader. Under the heading of vocational education are given those bulletins which, though not intended primarily for part-time schools, are of value. The part-time administrator should certainly be familiar with all of them. Of especial significance are Nos. 17, 28, 34, 45, 58, 65.

Bulletin No. 13. (Agricultural Series, No. 1.) Agricultural Education—Organization and Administration.

Bulletin No. 16. Emergency War Training for Radio Mechanics and Radio Operators.

Bulletin No. 17. (Trade and Industrial Series, No. 1.) Trade and Industrial Education—Organization and Administration.

Bulletin No. 18. (Trade and Industrial Series, No. 2.) Evening Industrial Schools.

Bulletin No. 20. (Trade and Industrial Series, No. 4.) Buildings and Equipment for Schools and Classes in Trade and Industrial Subjects.

Bulletin No. 21. (Agricultural Series, No. 3.) The Home Project as a Phase of Vocational Agricultural Education.

Bulletin No. 22. (Commercial Education Series, No. 1.) Retail Selling.

Bulletin No. 23. (Home Economics Series, No. 1.) Clothing for the Family. On sale by Superintendent of Documents, Government Printing Office. 15c per copy.

Bulletin No. 26. (Agricultural Series, No. 4.) Agricultural Education: Some Problems in State Supervision.

Bulletin No. 27. (Agricultural Series, No. 5.) The Training of Teachers of Vocational Agriculture.

Bulletin No. 28. (Home Economics Series, No. 2.) Home Economics Education: Organization and Administration.

Bulletin No. 31. (Trade and Industrial Series, No. 6.) Training Courses in Safety and Hygiene in the Building Trades.

Bulletin No. 34. (Commercial Education Series, No. 3.) Commercial Education: Organization and Administration.

Bulletin No. 35. (Home Economics Series, No. 3.) Use and Prep-

- aration of Food. On sale by Superintendent of Documents, Government Printing Office. 20c per copy.
- Bulletin No. 36.* (Trade and Industrial Series, No. 7.) Foreman Training Courses. Part I.
- Bulletin No. 36.* (Trade and Industrial Series, No. 7.) Foreman Training Courses. Part II.
- Bulletin No. 37.* (Home Economics Series, No. 4.) Survey of the Needs in the Field of Vocational Home Economics Education.
- Bulletin No. 43.* (Employment Management Series, No. 8.) The Labor Audit: a method of industrial investigation.
- Bulletin No. 44.* (Employment Management Series, No. 5.) The Wage-setting Process.
- Bulletin No. 45.* (Employment Management Series, No. 3.) Job Specifications.
- Bulletin No. 46.* (Employment Management Series, No. 6.) The Turnover of Labor.
- Bulletin No. 48.* (Employment Management Series, No. 4.) Employment Management and Industrial Training.
- Bulletin No. 49.* (Employment Management Series, No. 2.) The Selection and Placement of Employees.
- Bulletin No. 50.* (Employment Management Series, No. 1.) Employment Management: Its Rise and Scope.
- Bulletin No. 51.* (Employment Management Series, No. 9.) Bibliography of Employment Management.
- Bulletin No. 52.* (Trade and Industrial Series, No. 13.) Theory and Practice. Machinist's Trade. On sale by Superintendent of Documents, Government Printing Office. 10c per copy.
- Bulletin No. 53.* (Agricultural Series, No. 6.) Lessons in Plant Production for Southern Schools.
- Bulletin No. 56.* (Agricultural Series, No. 7.) Lessons in Animal Production for Southern Schools.
- Bulletin No. 57.* (Industrial Rehabilitation Series, No. 1.) Industrial Rehabilitation: a Statement of Policies to Be Observed in the Administration of the Industrial Rehabilitation Act.
- Bulletin No. 58.* (Trade and Industrial Series, No. 15.) Trade and Industrial Education for Girls and Women.
- Bulletin No. 59.* (Reëducation Series, No. 8.) A Tuberculosis Background for Advisers and Teachers.
- Bulletin No. 60.* (Trade and Industrial Series, No. 16.) Foremanship Courses vs. Instructor Training Courses.
- Bulletin No. 61.* (Trade and Industrial Series, No. 17.) Improving Foremanship. Trade Extension Courses for Foremen.
- Bulletin No. 62.* (Trade and Industrial Series, No. 18.) Instructor Training.
- Bulletin No. 63.* (Agriculture Series, No. 8.) A Unit Course in Poultry Husbandry. On sale by Superintendent of Documents, Government Printing Office. 5c per copy.
- Bulletin No. 64.* (Industrial Rehabilitation Series, No. 2.) Industrial Rehabilitation: General Administration and Case Procedure.
- Bulletin No. 65.* (Home Economics Series, No. 5.) Child Care

and Child Welfare. On sale by Superintendent of Documents, Government Printing Office. 35c per copy.

Bulletin No. 68. (Agriculture Series, No. 9.) A Unit Course in Swine Husbandry. On sale by Superintendent of Documents, Government Printing Office. 5c per copy.

Bulletin No. 69. (Trade and Industrial Series, No. 21.) An Analysis of the Railway Boilermaker's Trade.

Bulletin No. 70. (Industrial Rehabilitation Series, No. 3.) Industrial Rehabilitation: Services of Advise ment and Coöperation.

Bulletin No. 71. (Home Economics Series, No. 6.) The Home Project: Its Use in Home-making Education. On sale by Superintendent of Documents, Government Printing Office. 10c per copy.

Bulletin No. 72. (Industrial Rehabilitation Series, No. 4.) Vocational Rehabilitation in Rural Communities.

Bulletin No. 74. (Agricultural Series, No. 10.) Analyzing a Potato Enterprise. Suggestions for Teachers.

Bulletin No. 75. (Agricultural Series, No. 11.) Analyzing a Poultry Enterprise.

Bulletin No. 76. (Civilian Vocational [Industrial] Rehabilitation Series, No. 5.) Vocational Rehabilitation and Workmen's Compensation.

Bulletin No. 77. (Civilian Vocational [Industrial] Rehabilitation Series, No. 6.) Handbook of Information for State Officials Co-operating in the Administration of the Vocational Rehabilitation Act.

Bulletin No. 79. (Home Economics Series, No. 7.) A study of Home Economics Education in Teacher Training Institutions for Negroes.

Bulletin No. 80. (Civilian Vocational Rehabilitation Series, No. 7.) Vocational Rehabilitation—Its Purpose, Scope, and Methods, with Illustrative Cases.

Bulletin No. 81. (Agricultural Series, No. 12.) Rooms and Equipment for the Teaching of Vocational Agriculture in Secondary Schools.

Bulletin No. 82. (Agricultural Series, No. 13.) Effectiveness of Vocational Education in Agriculture. A Study of the Value of Vocational Instruction in Agriculture in Secondary Schools as Indicated by the Occupational Distribution of Former Students.

Bulletin No. 83. (Agricultural Series, No. 14.) Supervised Practice in Agriculture. Aims and Values of Such Practice and Responsibilities of Pupils, Teachers, State Administrators, and Local Boards of Education.

Bulletin No. 84. (Agricultural Series, No. 15.) Principles Underlying the Distribution of Aid to Vocational Education in Agriculture. Bases of Apportioning Aid to Local Communities and Limiting Provisions under which Aid is Granted.

Bulletin No. 86. (Home Economics Series, No. 8.) The Health of the Family. A Program for the Study of Personal, Home, and Community Health Problems.

Bulletin No. 87. (Trade and Industrial Series, No. 25.) Apprentice Education. A Survey of Part-time Education and Other Forms of

Extension Training in their Relation to Apprenticeship in the United States.

Bulletin No. 88. (Agricultural Series, No. 16.) Analysis of the Management of a Farm Business. Managerial-training Content of the Type Jobs of a Farm as a Business Unit.

Bulletin No. 89. (Agricultural Series, No. 17.) Agricultural Evening Schools. Methods of Organizing and Conducting Evening Schools and Suggestions for Content of Courses.

Bulletin No. 90. (Agricultural Series, No. 18.) Agricultural Teacher Training. Principles of Organization for the Training of Teachers of Agriculture.

Bulletin No. 91. (Agricultural Series, No. 19.) Job Lesson Units for Selected Truck and Fruit Crops Adapted to Southern Conditions, Suggestions to Teachers for Organizing Instruction on the Basis of Job Analyses of Crop Production.

Bulletin No. 92. (Trade and Industrial Series, No. 26.) Apprentice Education in the Construction Industry. Discussions and papers presented at the Seventeenth Annual Convention of the National Society for Vocational Education, at Buffalo, N. Y., December 6, 1923.

III. Part-time Education

SADLER, MICHAEL E. *Continuation Schools in England and Elsewhere.* Manchester, University of Manchester Press, 1907.

This is the outstanding exposition of the development of "further education." A careful study of the volume is necessary for an understanding of the function of continuation schools especially, as the subtitle of the book indicates, in regard to "Their place in the educational system of an industrial and commercial state." This volume of nearly 800 pages contains a collection of studies of continuation schools (including evening schools) in England, Scotland, Wales, Germany, Switzerland, France, and the United States. The general conclusion is that the compulsory day continuation school is the ultimate solution of "continuation" education.

KERSCHENSTEINER, GEORG. *Education for Citizenship.* New York, Rand, McNally & Co., 1911.

This is the prize essay which sets forth the ideas underlying Dr. Kerschesteiner's reorganization of the Munich continuation schools. Of it Prof. Sadler says: "This book will be a landmark in the history of education." A knowledge and appreciation of the principles laid down for continuation education is essential for effective administration of continuation schools.

BEST AND OGDEN. *The Problem of the Continuation School.* London, P. S. King & Son, Orchard, Westminster, 1914.

An examination of the Munich continuation schools "to discover their meaning for the difficulties presented to us in England today." A sympathetic and enthusiastic study which makes a strong plea for the adoption of this type of education in England.

YEAXLEE, BASIL A. *Working Out the Fisher Act.* Humphrey Milford, Oxford University Press, 1921.

An enlightening pamphlet on the "human aspect of the continuation schools." The fundamental educational conceptions embodied in the Fisher Act are explained under the headings: A National System of Public Education, The New Outlook for the Child, The Prospects of the Young Person, The Hope of a New Democracy, The Opportunity of the Teacher, The Parent's Part, The Duty of the Employer, The Responsibility of the Local Education Authority, The Claim upon Our Citizenship.

WRAY AND FERGUSON. *A Day Continuation School at Work*. London, Longmans, Green & Co., 1920.

A human and very readable account of experiments with this type of school. The administrator or teacher beginning continuation school work will be heartened by a realization that the difficulties encountered are for the most part common to such experiments.

WATERFALL, EDITH ANNA. *The Day Continuation School in England, Its Function and Future*. London, Geo. Allen & Unwin, 1923.

"It is the object of this study to investigate, chiefly as they affect England, these two problems, viz., its future place in the educational structure of the country. . . . The plan of the investigation is as follows:

"1. To sketch the coming of the Day Continuation School in England.

"2. To analyze the schemes of the Local Education Authorities under the Act of 1918, with regard to these schools.

"To analyze the working of the schools conducted by the various Local Authorities.

"To analyze the more outstanding 'works schools.'

"3. To sum up the present function of the Day Continuation School in England and to forecast its future.

"4. To compare the main features of the proposals and practice with the situation in Europe and the United States."

FEDERAL BOARD FOR VOCATIONAL EDUCATION. Six of the publications of the board deal specifically with part-time education. The survey by Mr. H. B. Smith supplies a very valuable general view of the status of continuation schools in this country as regards practice and opinion. The summary of attendance laws gives the legal aspect, while Nos. 19 and 30 set forth practical measures in administration.

Bulletin No. 73. (Trade and Industrial Series, No. 22.) Part-time Schools. A survey of experience in the United States and foreign countries. On sale by Superintendent of Documents, Government Printing Office. 35c per copy.

Bulletin No. 55. (Trade and Industrial Series, No. 14.) Compulsory part-time attendance laws.

Bulletin No. 19. (Trade and Industrial Series No. 3.) Part-time trade and industrial education.

Bulletin No. 30. (Trade and Industrial Series, No. 5.) Evening and part-time schools in the textile industry of the Southern States.

Bulletin No. 78. (Trade and Industrial Series, No. 23.) Part-Time Coöperative Courses.

Bulletin No. 85. (Trade and Industrial Series, No. 24.) Program

for Training Part-Time School Teachers. Organization and Content of a Training Program to Prepare Teachers for Effective Service in Part-Time Schools.

UNIVERSITY OF CALIFORNIA. Under the direction of Edwin A. Lee, Director, Division of Vocation Education, and Miss Emily G. Palmer, Special Agent for the Training of Part-time Teachers, the University is issuing an extremely valuable series of bulletins as the result of studies being made in connection with its teacher training work. For administrative work the bulletin on coördination is especially helpful. For vocational guidance purposes the extensive studies of various junior occupations are most important. They will be listed under that heading. While many of the issues of the Part-time News Notes are out of print, they contain much material indicative of the development of part-time work, and will probably appear later in permanent form.

Bulletin No. 3. Coördination in Part-Time Education. March, 1921.

Bulletin No. 6. Part-Time and Continuation Schools Abroad. Reprints, November, 1921. Contains an interesting account of the continuation classes established by the Lever Brothers at Port Sunlight, England.

Bulletin No. 10. Third Annual Report of the Director of Part-Time Education, Stockton, Calif., Oct., 1922.

Bulletin No. 14. The Administration of the Part-Time School in the Small Community.

Leaflet No. 3. Selected Reading List for Administrators and Teachers in Part-Time Schools. September, 1921.

Leaflet No. 4. Recreational Reading for Part-Time and Continuation Schools. March, 1922.

Part-Time News Notes, No. 1. Three Months of Coördination in the Oakland Schools. November, 1920.

Part-Time News Notes, No. 2. Progress in Part-Time Education in Los Angeles. December, 1920.

Part-Time News Notes, No. 3. The Work of the Director of Part-Time Education. January, 1921.

Part-Time News Notes, No. 4. The Application for Enrollment in Part-Time Schools; a Statistical Study. April, 1921.

Part-Time News Notes, No. 5. Junior Employees in the Retail Drug Business. May, 1921.

Part-Time News Notes, No. 6. Outline of Course in Citizenship Training for Part-Time Schools. September, 1921.

Part-Time News Notes, No. 7. Items from Part-time Schools in California. March, 1922.

Part-Time News Notes, No. 8. May, 1922.

CALIFORNIA STATE BOARD OF EDUCATION. Bulletin No. 23, P-T. E., Vocational Education, Compulsory Part-Time Education, Information for the Use of Teachers, School Authorities, Employers of Youth and the General Public. February, 1920, revised, June, 1921.

An exposition of the California part-time law, and some detailed instructions as to methods of carrying out its spirit. The

catechetical form makes it easy of comprehension for those just becoming acquainted with part-time work.

- COMMONWEALTH OF MASSACHUSETTS. Bulletin of the Department of Vocational Education, Whole No. 111. Compulsory Continuation Schools, a Circular of Information on the Boston Compulsory Continuation School. 1919.

A brief exposition of the organization and program, followed by extensive and detailed outlines of lessons in the various subjects taught. Very valuable for an appreciation of the variety of topics pertinent to the education of the young worker.

- COMMONWEALTH OF MASSACHUSETTS. Bulletin of the Department of Education, Division of Vocational Education. Whole No. 133. Second Annual Conference of Directors of Continuation Schools. Boston, 1922. A number of formal papers on various phases of administrative procedure.

- UNIVERSITY OF THE STATE OF NEW YORK. Bulletin No. 697. Organization and Administration of Part-Time Schools. Albany, 1919.

Defines the law and makes such recommendations as will help administrators to carry out its provisions.

- CITY OF NEW YORK. *Information about Continuation Schools*. Board of Education, 1922.

A pamphlet designed to give employers and the public an idea of the purposes of the continuation school. Contains pictures of various activities and quotations from the press.

- COMMONWEALTH OF PENNSYLVANIA, Department of Public Instruction. *Courses of Study for Continuation Schools*. 1923.

This pamphlet gives under the heading of Fundamentals the special needs of continuation school pupils, special methods for continuation school pupils, and general content of instruction. There follow detailed outlines of courses in civics, guidance, English, hygiene, industrial and commercial geography, mathematics, science, applied art, commercial work, home economics, industrial subjects, and manners and conduct.

- WISCONSIN STATE BOARD OF EDUCATION. The results of a vocational school survey are published in separate pamphlets under the title, "Wisconsin's Educational Horizon," the entire series being edited by Edward A. Fitzpatrick, Secretary of the State Board of Education. As the first continuation school in the United States was established in Milwaukee, progress in this State is especially significant. The obstacles encountered and the methods used in overcoming them are illuminating. The following pamphlets are available:

Genesis and Purpose of Vocational School Survey; Beginnings of Continuation Schools in Wisconsin; History of Continuation Schools in Wisconsin. Edward A. Fitzpatrick.

Technical and Trade Training through the Continuation School. Edward A. Fitzpatrick.

Fundamentals of the Curriculum and of the Course of Study. Edward A. Fitzpatrick. *Special Subjects*. Jennie McMullin Turner.

Suggested Programs. Jennie McMullin Turner.

Scholarships in Continuation Schools. Jennie McMullin Turner and Edward A. Fitzpatrick.

"Dual" Control in Wisconsin. Edward A. Fitzpatrick.

Adult Education. Edward A. Fitzpatrick.

FURNEY AND RODGERS. *Unit Instruction Sheets and Individual Instruction in Vocational Classes.* Albany, C. F. Williams & Son, 1922.

RODGERS AND FURNEY. *Industrial Subjects in a Part-Time or Continuation School.* Albany, C. F. Williams & Son, 1922.

WILKES, YORK, AND FURNEY. *Commercial Subjects in Part-Time or Continuation Schools.* Albany, C. F. Williams & Son, 1922.

KAUFFMAN AND FURNEY. *Industrial and Home-making Subjects for Girls.* Albany, C. F. Williams & Son, 1922.

The foregoing pamphlets by members of the New York State Education Department contain practical applications of the theory of individual instruction to the part-time school. The organized subject-matter and illustrative methods should be a boon to the inexperienced administrator or teacher.

RODGERS, ROBERT H. *Outline of a Series of Conferences for Part-Time Teachers in Service.* Albany, State Department of Education, 1921.

This mimeographed pamphlet contains extremely helpful matter for the training of teachers in service. Especial emphasis is laid upon occupational surveys and the use of the job instruction sheet.

WISCONSIN BOARD OF INDUSTRIAL EDUCATION. Bulletin No. 10. *Outlines of Lessons.* Institute of Teachers, Wisconsin Public Industrial, Commercial, Continuation, and Evening Schools, held in Milwaukee, September, 1914.

WISCONSIN BOARD OF INDUSTRIAL EDUCATION. Bulletin No. 11. Ditto, held in Oshkosh, May, 1915.

The foregoing Wisconsin pamphlets are replete with details as to the subject and methods that may be used effectively in a continuation school.

BUREAU OF EDUCATION. *Part-Time Education of Various Types.* Washington, 1921. A report of the commission on the reorganization of secondary education, appointed by the National Education Association.

ONTARIO DEPARTMENT OF EDUCATION. *Recommendations and Regulations for the Establishment, Organization, and Management of Industrial, Technical, and Art Schools and Industrial, Technical, and Art Departments in High and Continuation Schools and Collegiate Institutes.* Toronto, 1919.

Contains a very suggestive course of study and bibliography.

PLECHER, HANS. *Das Arbeitsprinzip in Volks- und Fortbildungsschule, mit Besondere Berücksichtigung der Münchener Schulorganisation.* Leipzig, Verlag von Ernst Wunderlich, 1909.

SIERCKS, H. *Das Deutsche Fortbildungsschulwesen, nach Seiner Geschichtlichen Entwicklung und in Seiner Gegenwärtigen Gestalt.* Leipzig, G. J. Göschen'sche Verlagshandlung, 1908.

These two German publications are original sources for the development of the continuation school movement in Germany.

ALLEN, CHARLES R. *The Instructor, the Man, and the Job*. Philadelphia, J. B. Lippincott Co., 1919.

Written as a handbook to instructors in industrial plants and to serve as "instruction notes" in instructor training course. This book is of incalculable value to the continuation school teacher as a forceful, non-technical presentation of the practical method of job analysis, with its application to practical work on the job. For the type of pupil found in the continuation school Mr. Allen's work needs considerable modification, but the simple, straightforward exposition of the teacher's problems makes this comparatively simple. In continuation school method this is a basic book.

WRIGHT, J. C. *Automotive Repair*. New York, John Wiley & Sons, 1921.

This is termed an "instruction manual of repair jobs for the general repairman and the owner." It is mentioned here as an illustration of the general principle of the job instruction sheet. In the continuation school this principle must be carried out with much greater attention to detail.

IV. Vocational Guidance

Vocational guidance material falls into two general classes, that containing information regarding jobs, usually known as an occupational survey or a job analysis, and that which especially concerns itself with the adaptation of the individual to the occupation. The latter is usually for teaching purposes in the class-room, while the former is used for organization of schools and courses of study. Such surveys as those of Minneapolis and Richmond supplied the stimulus which has resulted in numerous similar studies on a greater or smaller, usually smaller, scale. They need little comment, as their titles indicate their scope.

ALLEN, FREDERICK J. *A Guide to the Study of Occupations: a Selected Critical Bibliography of the Common Occupations with Specific References for Their Study*. Cambridge, Harvard University Press, 1921.

Should be in the hands of every continuation school teacher. As the occupations are alphabetically arranged, the references for any particular occupation may be readily found.

CLEVELAND FOUNDATION, SURVEY COMMITTEE. *Cleveland Education Survey*. (Sectional reports on vocations.) Cleveland, 1915-17. 25 volumes.

INDIANA, STATE BOARD OF EDUCATION. *Report of the Evansville Survey for Vocational Education*. Indianapolis, 1917. Educational Bulletin, No. 19. Survey Series, No. 4.

INDIANA, STATE BOARD OF EDUCATION. *Report of the Indianapolis Survey for Vocational Education*. Indianapolis, 1917. Indiana State Board of Education. Indiana Survey Series, No. 6.

INDIANA, STATE BOARD OF EDUCATION. *Report of the Jefferson County Survey*. Indianapolis, 1917. Indiana State Board of Education. Indiana Survey Series, No. 5.

- INDIANA, STATE BOARD OF EDUCATION. *Report of the Madison, Ind., Vocational Survey*. Indianapolis, 1917. Indiana State Board of Education. Indiana Survey Series, No. 7.
- INDIANA, STATE BOARD OF EDUCATION. *Report of the Richmond, Ind., Survey for Vocational Education*. Indianapolis, 1916. Indiana State Board of Education. Educational Bulletin. Vocational Series, No. 15. Indiana Survey Series, No. 3.
- MINNEAPOLIS, VOCATIONAL EDUCATION SURVEY OF. United States Department of Labor, Bureau of Labor Statistics. Bulletin Whole No. 199. Vocational Educational Series, No. 1, 1916.
- RICHMOND, VA., VOCATIONAL EDUCATION SURVEY OF. United States Department of Labor, Bureau of Labor Statistics. Bulletin Whole No. 162, 1916.
- NEW YORK CITY, BOARD OF ESTIMATE AND APPORTIONMENT. *The Industrial Education Survey of the City of New York*. Complete report of the committee authorized by the Board of Estimate and Apportionment. New York City, 1918.
- NEW ORLEANS, DEPARTMENT OF SUPERINTENDENCE, DIVISION OF EDUCATIONAL RESEARCH. *Vocational Survey for the Isaac Delgado Central Trades School*. David Spence Hill. New Orleans, The Commission Council, 1914-16.
- ODENCRANTZ AND POTTER. *Industrial Conditions in Springfield, Ill.* A survey by the committee on women's work and the department of surveys and exhibits, Russell Sage Foundation. The Springfield Survey, Industrial Section. New York City, Department of Surveys and Exhibits, Russell Sage Foundation, 1916.
- PARK AND HARLAN. *Some Facts Concerning Manual Arts and Home-making Subjects in 156 Cities*. United States Bureau of Education Bulletin, No. 32, 1916.
- READING, PA., BOARD OF SCHOOL DIRECTORS, DEPARTMENT OF PRACTICAL ARTS. *A Survey of Manual, Domestic, and Vocational Training in the United States*. Reading, Pa., 1915.
- RIGHTER, LEONARD. *Educational Survey Preparatory to Organization of Vocational Education*. New York City, Teachers College, Columbia University, 1913. Teachers College Record, Vol. 14, No. 1.
- UNITED STATES BUREAU OF EDUCATION. *Industrial Education in Wilmington, Delaware*. Report of a survey. Bulletin No. 25, 1918.
- UNITED STATES BUREAU OF EDUCATION. *Training for Foreign Service*. Glen Levin Swiggett. Bulletin No. 27, 1921.
- UNITED STATES DEPARTMENT OF LABOR. BUREAU OF LABOR STATISTICS. *Personnel Research Agencies: a Guide to Organized Research in Employment Management, Industrial Relations Training, and Working Conditions*. J. David Thompson. Bulletin No. 299, 1921.
- UNITED STATES DEPARTMENT OF LABOR, UNITED STATES TRAINING SERVICE. *Training in the Men's Suit and Overcoat Industry: an Outline of the Organization and Conduct of Training for Cutters, Pressers, Machine Operators, and Hand Sewers in the Industry*. Training Bulletin, No. 16, 1919.
- UNITED STATES DEPARTMENT OF LABOR, UNITED STATES TRAINING SERVICE. *Training Workers in the Women's Cloak, Suit, and Skirt Industry*. A plan for the organization and conduct of training for cutters,

- pressers, machine operators, and hand sewers in the industrial establishments. Training Bulletin, No. 17, 1919.
- UNITED STATES DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS. *Descriptions of Occupations*. 1918.
- UNITED STATES DEPARTMENT OF COMMERCE, BUREAU OF FOREIGN AND DOMESTIC COMMERCE. *Training for the Steamship Business*. R. S. MacElwee. Miscellaneous Series, No. 98, 1920.
- FEDERAL BOARD FOR VOCATIONAL EDUCATION. *Survey of Junior Commercial Occupations, Made by the Federal Board for Vocational Education through State Boards for Vocational Education in Nineteen States*. June, 1920. A most valuable pamphlet. The various jobs are minutely analyzed as to duties, training required in continuation school, the more remote objectives, and training in evening school. The promotional line is indicated.
- FEDERAL BOARD FOR VOCATIONAL EDUCATION. *A Survey and Analysis of the Pottery Industry*. Bulletin No. 67.
- UNITED STATES DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS. *Occupations of Children. Fourteenth Census of the United States, 1920*. Of children between 10 and 15 years of age this pamphlet gives the number and proportion occupied, the number and proportion in each general division of occupations, the number in specified occupations, the number and proportion occupied in each principal class of the population, and causes of decreases in proportion occupied.
- ONTARIO GOVERNMENT. DEPARTMENT OF LABOR. *Vocational Opportunities in the Industries of Ontario: a survey*. Toronto, 1920. Ten bulletins giving a good analysis of the following trades: boots and shoes; bread, biscuits, and confectionery; department and notion stores; dressmaking and millinery; foundries and machine shop products; furniture and upholstery; garments; harness and saddlery; printing and allied trades; and textiles.
- UNIVERSITY OF CALIFORNIA, DIVISION OF VOCATIONAL EDUCATION, RESEARCH AND SERVICE CENTER. In the part-time series noted above under Vocational Education the university has issued the following creditable analyses of junior occupations:
- An Analysis of Department Store Occupations for Juniors*. Bulletin No. 2, 1920.
- An Analysis of the Work of Juniors in Banks*. Bulletin No. 4, 1921.
- An Analysis of Clerical Positions for Juniors in Railway Transportation*. Bulletin No. 5, 1921.
- The Work of Juniors in the Telegraph Service*. Bulletin No. 7.
- The Work of Juniors in Retail Grocery Stores*. Bulletin No. 9.
- Farm Mechanics for California Schools*. Bulletin No. 11.
- Analysis of House Carpenter's Trade*. Bulletin No. 12.
- Analysis of Cabinet Maker's Trade*. Bulletin No. 13.
- UNIVERSITY OF CALIFORNIA, DEPARTMENT OF EDUCATION, BUREAU OF RESEARCH IN EDUCATION. *A Survey of the Garment Trades in San Francisco*. Study No. 3, by Emily G. Palmer.
- TECHNICAL ASSOCIATION OF THE PULP AND PAPER INDUSTRY. *Vocational Education in the Pulp and Paper Industry; Scope of Vocational*

Education, Analyses of Payroll Jobs, and Synopsis of the Textbooks. J. C. Wright. New York, published by the Joint Executive Committee of the Vocational Education Committees of the Pulp and Paper Industry, 1921.

THE LAUNDRY BOARD OF TRADE. *Laundry Industry and Laundry Trades of Greater New York.* A vocational education survey made in conjunction with the Division of Vocational and Extension Education of the New York State Department of Education. New York, 1922.

ALFRED, HELEN. *Study of the Silk Lampshade Industry.* A survey made under the direction of Margaret Carr of the Juvenile Placement Bureau, New York State Department of Labor. New York, 1922.

AMERICAN HOTEL ASSOCIATION OF THE UNITED STATES AND CANADA. *Vocational Education in the Hotel Business.* L. S. Hawkins.

RODGERS, ROBERT H. *Trade Foundations Based on Producing Industries.* A prevocational textbook by prevocational and vocational directors, instructors, and tradesmen. Indianapolis, Guy M. Jones Co., 1919.

Analyzes occupations, describes the materials, tools, and operations in each operation, explains the necessary drawing, and outlines prevocational shop work. A book which should be in the hands of every vocational and academic teacher, as it contains a wealth of valuable material in a small space.

V. The Child in Relation to Industry

BURDGE, HOWARD G. *Our Boys.* A study of the 245,000 sixteen-, seventeen-, and eighteen-year-old employed boys of the State of New York. Albany, State Military Training Commission, Bureau of Vocational Training, 1921.

A carefully conducted study which reveals some very interesting facts as to the relation of the boy to school and to his job.

MURPHY, JOSEPH P. *Children in Industry.* A survey made for the Associated Industries of New York State, Buffalo, 1919.

Discusses industry's relation to child labor, school preparation of the child for industry, physical preparation of child for industry, home need of child labor, elimination of girls under 16 from industry, gains or losses from higher standard than existing law.

GULICK, LUTHER H. *Why 250,000 Children Quit School; the Yearly Army That Drops Out of Line—Standards Too High and Teaching Too Dull.* New York, Department of Child Hygiene, Russell Sage Foundation, 1910.

Interesting for the light thrown upon the mental state of the child who comes to continuation school.

UNITED STATES DEPARTMENT OF LABOR, CHILDREN'S BUREAU. *Industrial Instability of Child Workers: a Study of Employment Certificate Records in Connecticut.* Robert Morse Woodbury. Bureau Publication No. 74, 1920.

Industrial instability is one of the important problems with which

the continuation school must contend. This study of its prevalence is significant.

UNITED STATES DEPARTMENT OF LABOR, CHILDREN'S BUREAU. *The Working Children of Boston: a Study of Child Labor under a Modern System of Legal Regulation*. Helen Sumner Woodbury. Bureau Publication No. 89, 1922.

A more extensive study than the foregoing, with valuable data.

REED, ANNA Y. *Junior Wage Earners*. New York, The Macmillan Co., 1920.

Considers the problem of the placement of junior workers. Deals with placement as a vocational guidance problem.

BENNET, HELEN M. *Women and Work*. New York, D. Appleton & Co., 1917.

BLOOMFIELD, MEYER. *The Vocational Guidance of Youth*. Boston, Houghton Mifflin Co., 1911.

BLOOMFIELD, MEYER. *Youth, School and Vocation*. Boston, Houghton Mifflin Co., 1915.

BLOOMFIELD, MEYER. *Readings in Vocational Guidance*. New York, Ginn & Co., 1915.

The first two books of Bloomfield give the early history of the vocational guidance movement as initiated by Parsons. The *Readings* contains a great number of papers giving numerous aspects of the problem. These books of Bloomfield and the following of Brewer constitute the completest account of the vocational guidance movement.

BREWER, JOHN M. *The Vocational Guidance Movement: Its Problems and Possibilities*. New York, The Macmillan Co., 1919.

Professor Brewer gives a brief account of the history of the movement and outlines the principal problems involved. This book is the only one which gives a comprehensive understanding of the whole field. It has the added merit of relating vocational guidance to economics and labor problems, as well as employing vision with respect to the future of the art and science of guiding the young worker. The student of vocational guidance should be thoroughly acquainted with this book. It contains a valuable bibliography.

BREWER, JOHN M. *Material for the Class in Occupations*. A mimeographed pamphlet published by the Bureau of Vocational Guidance, Graduate School of Education, Harvard University, Cambridge, Mass.

The teacher will find here much helpful material for the planning of lessons.

In addition to Brewer's book, several other more or less full treatments of vocational guidance schemes have been written. These are:

DAVIS, JESSE B. *Vocational and Moral Guidance*. New York, Ginn & Co., 1914.

Lays especial stress upon the teaching of vocational information through written and oral English lessons.

- GILES, FREDERICK M. *Vocational Civics*. New York, The Macmillan Co., 1919.
Emphasizes the relation of effective vocational guidance to civic life.
- PUFFER, J. ADAMS. *Vocational Guidance*. New York, Rand, McNally & Co., 1913.
Discusses such topics as the equipment of a counselor, the methods of a counselor, record plans, the differences among occupations, the vocational guide as a constructive social force.
- ROBINSON, CLARENCE C. *The Find Yourself Idea: a Friendly Method of Vocational Guidance for Older Boys*. New York, Association Press, 1922.
An account of the activities of the Young Men's Christian Association in bringing together boys and experienced business and professional men for friendly talks on the boys' future.
- UNITED STATES BUREAU OF EDUCATION. *Vocational Guidance and the Public Schools*. Bulletin No. 24, 1918, by W. Carson Ryan, Jr.
An important account of what had been done in the schools up to the date of publication. Contains a good bibliography.
- UNITED STATES BUREAU OF EDUCATION. *Vocational Guidance in Secondary Education: a Report of the Commission on the Reorganization of Secondary Education Appointed by the National Education Association*. Bulletin No. 19, 1918.
- UNITED STATES DEPARTMENT OF LABOR, CHILDREN'S BUREAU. *The Employment Certificate System: a Safeguard for the Working Child*. Bureau Publication No. 56 (Revised), 1921.
- UNITED STATES DEPARTMENT, CHILDREN'S BUREAU. *Advising Children in Their Choice of Occupation and Supervising the Working Child*. Children's Year Leaflet No. 10. Bureau Publication No. 53. April, 1919.
- UNITED STATES DEPARTMENT OF LABOR, CHILDREN'S LABOR. *Administration of Child Labor Laws: Employment Certificate System in Wisconsin*. Bureau Publication No. 85, by Ethel E. Hanks, 1921.
- WEAVER, E. W. *Building a Career*. New York, Association Press, 1922.
- CHRISTIAN, FRANK L. *How We Obtain Detailed Information Concerning Our Inmates and Their Environment*. Elmira, New York State Reformatory, 1919.
An interesting account of the use of such information for the vocational and moral guidance of delinquents.

A number of books have been written to aid both the teacher and the pupil in selecting a vocation for the boy or girl. These follow:

- BREWSTER, EDWIN TENNEY. *Vocational Guidance for the Professions*. New York, Rand, McNally & Co., 1917.
Principally for high school students.
- BUREAU OF VOCATIONAL INFORMATION. *Vocations for Business and Professional Women*. New York, 1919.
Intended for college women.
- CENTER, STELLA S., compiler. *The Worker and His Work*. J. B. Lippincott Co., 1920.

DICKSON, MARGUERITE STOCKMAN. *Vocational Guidance for Girls*. New York, Rand, McNally & Co., 1919.

Discusses the following topics: Woman's place in society, the ideal home, establishing a home, running the domestic machinery, the educational agencies involved, training the little child, teaching the mechanics of housekeeping, the girl's inner life, the adolescent girl, the girl's work, marriage.

FILENE, CATHERINE. *Careers for Women*. Boston, Houghton Mifflin Co., 1920.

Especially valuable for college trained women.

GOWIN AND WHEATLEY. *Occupations*. New York, Ginn & Co., 1916.

Useful as a textbook in boys' classes. Deals with occupations in terms of future possibilities.

HOERLE AND SALTZBERG. *The Girl and the Job*. New York, Henry Holt & Co., 1919.

Analyzes the various jobs which a girl may expect to hold successfully.

LASELLE AND WILEY. *Vocations for Girls*. Boston, Houghton Mifflin Co., 1913.

For girls of junior high school age and rather limited opportunities.

PARSONS, FRANK. *Choosing a Vocation*. Boston, Houghton Mifflin Co., 1909.

The first systematic treatment of vocational guidance.

PRESSEY, PARK. *A Vocational Reader*. New York, Rand, McNally & Co., 1916.

Contains extracts from various writings on the occupations. Usually idealized and of inspirational value rather than for practical information.

WEAVER, E. W. *Profitable Vocations for Girls*. New York, A. S. Barnes & Co., 1916.

WEAVER AND BYLER. *Profitable Vocations for Boys*. New York, A. S. Barnes & Co., 1915.

Good bibliographies on vocational guidance are found in the pamphlet by Ryan and the book by Brewer.

VI. Apprentices Training

In all the general books on vocational training apprenticeship is given consideration. The following, however, deal with that topic exclusively. If it be true that the continuation school is the logical development of apprenticeship, then both the administrator and teacher must have a clear understanding of what the system involves and involved.

DOUGLAS, PAUL H. *American Apprenticeship and Industrial Education*. New York, Columbia University, 1921.

DUNLOP, O. JOCELYN. *English Apprenticeship and Child Labor: a History*. With a supplementary section on the modern problem of juvenile labor by O. Jocelyn Dunlop and Richard D. Denman. New York, The Macmillan Co., 1912.

FLEMING AND PIERCE. *Principles of Apprenticeship Training*. New York, Longmans, Green & Co., 1916.

VII. Labor

The success of the continuation school will depend to a large measure upon its relation to labor. An understanding of labor problems is essential. There is a wide and varied literature on the subject. The following are suggested as covering the field as briefly as possible:

BEARD, MRS. CHARLES AUSTIN. *Short History of American Labor Movement*. New York, Harcourt, Brace & Howe, 1920.

CARLTON, FRANK. *Organized Labor in American History*. New York, D. Appleton & Co., 1920.

COMMONS AND ANDREWS. *Principles of Labor Legislation*. New York, Harper & Bros., 1920.

COMMONS, JOHN R. *History of Labor in the United States*. New York, The Macmillan Co., 1918.

VIII. Psychology and Educational Measurements

The application of psychology and measurements to efficiency in vocational education is a late development. The extent to which the results attained up to the present are valid can be stated with no certainty. The following will be useful to the administrator:

CHAPMAN, J. CROSBY. *Trade Tests: the Scientific Measurement of Trade Proficiency*. New York, Henry Holt & Co., 1921.

HOLLINGWORTH, H. L. *Vocational Psychology: Its Problems and Methods*. New York, D. Appleton & Co., 1920.

KING, WILLFORD I. *The Elements of Statistical Method*. New York, The Macmillan Co., 1921.

"The purpose of this book is to furnish a simple text in statistical method for the benefit of those students, economists, administrative officials, writers, or other members of the educated public who desire a general knowledge of the more elementary processes involved in the scientific study, analysis, and use of large masses of numerical data."

LINK, HENRY C. *Employment Psychology: the Application of Scientific Methods to the Selection, Training, and Grading of Employees*. New York, The Macmillan Co., 1919.

MCCALL, WILLIAM A. *How to Measure in Education*. New York, The Macmillan Co., 1922.

This most stimulating book has a chapter on Measurement in Vocational Guidance.

MUENSTERBERG, HUGO. *Psychology and Industrial Efficiency*. Boston, Houghton Mifflin Co., 1913.

RUGG, HAROLD O. *Statistical Methods Applied to Education: a Text-book for Students of Education in the Quantitative Study of School Problems*. Boston, Houghton Mifflin Co., 1917.

IX. General Education

While the administrator or teacher in a continuation school should undoubtedly be familiar with the practice of the full-time school, unfortunately this is not always the case. As a kind of touchstone, the following are suggested as embodying a minimum of information on current practice:

- BAGLEY, WILLIAM C. *Classroom Management*. New York, The Macmillan Co., 1907.
- BOLTON, FREDERICK E. *Principles of Education*. New York, Charles Scribner's Sons, 1910.
- COLVIN, STEPHEN S. *The Learning Process*. New York, The Macmillan Co., 1911.
- DEWEY, JOHN. *Democracy and Education: an Introduction to the Philosophy of Education*. New York, The Macmillan Co., 1916.
- DEWEY, EVELYN. *The Dalton Laboratory Plan*. New York, E. P. Dutton & Co., 1922.
- GRAVES, FRANK PIERREPONT. *A History of Education*. New York, The Macmillan Co., 1911.
- HORNE, HERMAN HARRELL. *The Psychological Principles of Education: a Study in the Science of Education*. New York, The Macmillan Co., 1911.
- HORNE, HERMAN HARRELL. *The Philosophy of Education, Being the Foundations of Education in the Related Natural and Mental Sciences*. New York, The Macmillan Co., 1904.
- JAMES, WILLIAM. *Talks to Teachers on Psychology*. New York, Henry Holt & Co., 1899.
- MONROE, PAUL. *A History of Education*. New York, The Macmillan Co.
- PARKHURST, HELEN. *Education on the Dalton Plan*. New York, E. P. Dutton & Co., 1922.
- STRAYER, GEORGE DRAYTON. *A Brief Course in the Teaching Process*. New York, The Macmillan Co., 1913.
- WELLS, M. E. *A Project Curriculum* (Lippincott).

X. Helps in Teaching Special Subjects

1. MATHEMATICS

a. General

- Barker: *Applied Mathematics for Junior and Senior High Schools* (Allyn).
- Breckenridge, Mersereau, and Moore: *Shop Problems in Mathematics* (Ginn).
- Campbell: *Workaday Arithmetic* (Century).
- Clark: *The Slide Rule* (Drake).
- Cobb: *Elements of Applied Mathematics* (Ginn).
- Dooley: *Vocational Mathematics* (Heath).
- Farnsworth: *Industrial Mathematics Practically Applied* (Van Nostrand).
- Hale: *Practical Applied Mathematics* (McGraw-Hill).

Hart and Watts: *Commercial and Industrial Arithmetic* (Appleton).

Holton: *Shop Mathematics* (Taylor-Holden).

Hoyt and Peet: *Everyday Mathematics* (Houghton Mifflin).

Hunt: *Community Arithmetic* (American Book Co.).

Johnson: *Shop Mechanics and Mathematics* (Wiley).

Keal and Leonard: *Mathematics for Shop and Drawing Students* (Wiley).

Keene: *Mechanics of the Household* (McGraw-Hill).

Marsh: *Practical Constructive Mathematics* (Wiley).

Moyer and Sampson: *Practical Trade Mathematics* (Wiley).

Norris and Smith: *Shop Arithmetic* (McGraw-Hill).

Oberg and Jones: *Shop Mathematics* (Industrial).

Paddock and Holton: *Vocational Arithmetic* (Appleton).

Palmer: *Practical Mathematics* (McGraw-Hill).

Slade and Margolis: *Mathematics for Technical and Vocational Schools* (Wiley).

Vincent: *Vocational Arithmetic* (Houghton Mifflin).

Walsh and Suzzalo: *Arithmetic Essentials* (Heath).

Walsh and Suzzalo: *Arithmetics (Business and Industrial Practice)* (Heath).

Webber: *Elementary Applied Mathematics* (Wiley).

Wentworth, Smith, and Harper: *Fundamentals of Practical Mathematics* (Ginn).

White and Colegrove: *Industrial Arithmetic* (Webb).

b. Machine Trades

Burnham: *Mathematics for Machinists* (Wiley).

Colvin: *Machine Shop Calculation* (McGraw-Hill).

Colvin and Cheney: *Machine Shop Arithmetic* (McGraw-Hill).

Colvin and Stanley: *American Machinists' Handbook* (McGraw-Hill).

Swingle: *Practical Handbook for Millwrights* (Drake).

Wentworth, Smith, and Harper: *Machine Shop Mathematics* (Ginn).

c. Building and Wood-working

Arthur: *Estimating Building Costs* (U. P. C.).

Dale: *Arithmetic for Carpenters and Builders* (Wiley).

Hicks and Duncan: *Builder's Guide* (U. P. C.).

Hodgson: *The Steel Square* (Drake).

Kidder: *Architects' and Builders' Handbook* (Wiley).

King: (Series) *Constructive Carpentry* (American).

Plant: *Contracts and Specifications* (Industrial).

Veddes: *Architect and Builder's Pocket Companion* (Baird).

d. Electrical Work

Croft: *American Electricians' Handbook* (McGraw-Hill).

Keal and Leonard: *Mathematics for Electrical Students* (Wiley).

Kent: *Mathematics of Electricity* (Dunwoody Press).

Sloane: *Arithmetic of Electricity* (Baird).

e. *Printing*

Ginsbach: *Print Shop Mathematics* (Ginn).

Woodfield: *Printer's Arithmetic* (Typothetæ School of Printing, Chicago).

f. *Sheet Metal Work*

Broemel: *Sheet Metal Worker's Manual* (Drake).

Hopp and Neubecker: *Estimating Sheet Metal Work* (U. P. C.).

Kittridge: *New Metal-worker's Pattern Book* (U. P. C.).

Newbecker: *Mensuration for Sheet Metal Workers* (Drake).

g. *Farming*

Burkett and Swartzel: *Farm Arithmetic* (Orange).

Madden and Turner: *A Rural Arithmetic* (Houghton).

Shutts and Weir: *Agriculture Arithmetic* (Webb).

Thomas: *A Rural Arithmetic* (American).

Federal Board for Vocational Education, Washington, Rehab.

Mono. 23: *Vocational Arithmetic for Agriculturalist*.

h. *Business*

Edgerton and Bartholomew: *Business Mathematics* (Ronald).

Finney and Walton: *Mathematics for Business* (Ronald).

Kiggen: *Practical Business Arithmetic* (Macmillan).

Lennes and Jenkins: *Applied Arithmetic III*. (Lippincott).

Moore: *New Commercial Arithmetic* (American).

Moore and Miner: *Practical Business Arithmetic* (Ginn).

Smith: *Applied Arithmetic* (Lyons & Carnahan).

South: *Arithmetic for Business* (Lyons & Carnahan).

Thurston: *Business Arithmetic for Elementary Schools* (Macmillan).

Vinal: *Mathematics for the Accountant* (Biddle).

Weintrob: *The Silk Arithmetic* (Simmons).

i. *Women's Occupations*

Davis: *Vocational Arithmetic for Girls* (Bruce).

Dooley: *Vocational Mathematics for Girls* (Heath).

Education Supply Co.: *Practical Household Arithmetic of Daily Life*.

Gardner and Murtland: *Industrial Arithmetic for Vocational Schools* (Heath).

Richardson: *Industrial Arithmetic for Girls* (Blakiston).

Roray: *Industrial Arithmetic for Girls* (Blakiston).

Smith et al.: *Mathematics for Nurses* (Teachers College, Columbia University, New York City).

j. *Plumbing*

Dibble: *Plumber's Handbook* (McGraw-Hill).

Gray: *Estimate and Contract Record Book for Plumbers* (U. P. C.).

k. Pharmacy

Stevens: *Arithmetic of Pharmacy* (Van Nostrand).

2. TRADE DRAWING

Bailey: *Mechanical Drawing for Beginners* (Manual Training).

Collins: *Drawing and Construction* (Scribners).

French and Svenson: *Mechanical Drawing for High Schools* (McGraw-Hill).

Hutton: *Mechanical Drawing for Continuation Schools* (Scott Foresman).

Wooley and Meredith: *Shop Sketching* (McGraw-Hill).

Wyatt: *Blue Print Reading* (Bruce).

3. MACHINE SHOP PRACTICE

Burghardt: *Machine Tool Operation* (McGraw-Hill).

Part I. Lathe and Bench Work

Part II. Other Machines

Smith: *Advanced Machine Work* (Industrial).

Stanley and Colvin: *Machine Shop Primer* (McGraw-Hill).

4. AUTO MECHANICS

Consoliver and Mitchell: *Automotive Ignition Systems* (McGraw-Hill).

Dyke's *Automobile Encyclopedia* (Dyke Publishing Co., St. Louis).

Emerson and Jones: *Auto Repair Practice* (Century).

Hiscox: *Gas, Gasoline, and Oil Engines* (Henley).

Hobbs, Elliot, and Consoliver: *The Gasoline Automobile* (McGraw-Hill).

Homan: *The Gasoline Automobile by Construction, Theory, Operation and Care* (Audell).

Hyatt: *Gasoline Engines, Their Operation, Use and Care* (Henley).

Kuns: *Automotive Trade Training* (Bruce).

Page: *The Modern Gasoline Automobile* (Henley).

Page: *Automobile Repairing Made Easy* (Henley).

Page: *Questions and Answers Relating to Automobile Repairing* (Henley).

Page: *Modern Auto Construction, Driving, and Repair* (Henley).

Page: *Starting and Lighting Systems* (Henley).

Page: *Gasoline and Kerosene Carburetors, Construction, Installation and Adjustment* (Henley).

Wright: Vol. 1. *Automotive Repair* (Wiley).

Vol. 2. *Instruction Manual for Electrical Service Men* (Wiley).

Vol. 3. *Instruction Manual for Battery Service Men* (Wiley).

Vol. 4. *Instruction Manual for Tire Service Men* (Wiley).

5. BUILDING AND WOOD-WORKING

Barnard: *Tools and Machines* (Silver Burdett).

Chase: *Art of Pattern Making* (Wiley).

Crawshaw: *Problems in Furniture Making* (Manual Arts Press).

Disston and Sons: *Handbook for Lumbermen* (Disston & Sons, Philadelphia).

Dooley: *Applied Science for Woodworkers* (Ronald).

Ellis: *Modern Practical Joinery* (B. T. Batsford, London).

Griffiths: *Essentials of Woodworking* (Manual Arts Press).

Hogson: *The Up-to-Date Hardwood Finisher* (Industrial).

Moncktons: *Stair Building* (Wiley).

Noyers: *Handbook in Wood* (Manual Arts Press).

Pinchot: *Primer of Forestry* (U. S. Dept. of Agriculture).

Riley: *A Manual of Carpentry* (Macmillan).

Rusch: *Shop Work and Joinery* (Industrial Book & Equipment Co., Indianapolis, Ind.).

6. ELECTRIC WIRING AND INSTALLATION

Braymer: *Armature Winding and Motor Repair* (McGraw-Hill).

Bullard: *Naval Electricians' Text Book* (Baltimore Press).

Cleveland Armature Works: *Practical Electricity* (Cleveland Armature, Cleveland, Ohio).

Cook: *Interior Wiring* (John Wiley & Sons).

Croft: *The American Electricians' Handbook* (McGraw-Hill).

Croft: *Wiring of Finished Buildings* (McGraw-Hill).

Croft: *Wiring for Light and Power* (McGraw-Hill).

Croft: *Electrical Machinery* (McGraw-Hill).

Croft: *Practical Electrical Illumination* (McGraw-Hill).

Foster: *Electrical Engineers' Pocket-book* (Van Nostrand).

Hawkins: *Electrical Dictionary* (Theodore Audel Co.).

Hawkins: *Electrical Guides* (Audel).

International Text Book Co.: *Electrical Engineer's Handbook*.
International Text Book Co.: *Telephone and Telegraph Engineer's Pocketbook*.

Jackson: *Elementary Electricity and Magnetism* (Macmillan).

Jansky: *Electrical Meters* (McGraw Hill).

Maver: *American Telegraphy and Encyclopedia of the Telegraph* (Maver).

Maycock: *Electric Wiring Circuits* (Whittaker & Co., New York).

McGraw-Hill Book Company: *Standard Handbook for Electrical Engineers*.

National Electric Light Association: *Electrical Meterman's Handbook* (National Electric Assn.).

- Shepardson: *Electrical Catechism* (McGraw-Hill).
 Swoopes' *Lessons in Practical Electricity* (Van Nostrand).
 Timbie: *Essentials of Electricity* (Wiley).
 Timbie: *Elements of Electricity* (Wiley).
 Timbie: *Electrical Measurements in Direct and Alternating Currents* (Wiley).
 Timbie and Higbie: *Alternating Current (First Course)* (Wiley).
 Timbie and Higbie: *Alternating Current (Second Course)* (Wiley).
 Timbie and Higbie: *Essentials of Alternating Currents* (Wiley).

7. PLUMBING

- Clarke: *Modern Plumbing Practice* (an account of practical lead working and plumbers' materials) (B. T. Batsford, London).
 Clow: *Practical Up-to-Date Plumbing* (F. J. Drake & Co.).
 Clow and Donaldson: *Standard American Plumbing* (Sears, Roebuck & Co.).
 Cosgrove: *Principles and Practice of Plumbing* (Standard Sanitary Mfg. Co., Pittsburg).
 Cosgrove: *Floor Connections for Water Closets and Sinks* (New Jersey Potteries Selling Co., Trenton).
 Dibble: *Elements of Plumbing* (McGraw-Hill).
 Dooley: *Vocational Mathematics* (Heath).
 Gray: *Gray's Plumbing, Design, and Installation* (David Williams Co., N. Y.).
 Hutton: *Joint Wiping and Lead Work* (D. Williams Co.).
 Starbuck: *Standard Practical Plumbing* (Norman W. Henley Pub. Co., N. Y.).
 Svensen: *A Handbook on Piping* (Van Nostrand).
 Vincent: *Vocational Arithmetic* (Houghton Mifflin).
 A *Text Book on Plumbing, Heating, etc.* (International Text Book Co., Scranton, Pa.).

8. PRINTING

- Clelland: *A Grammar of Color* (Strathmore Co.).
 Hague: *Textbook in Printing Occupations* (Bruce).
 Henry: *Printing for School and Shop* (Wiley).
 Polk: *Vocational Printing* (Guy M. Jones).
 United Typothetæ of America: *Typographic Library*, Chicago.

9. SHEET METAL WORK

- Blum: *Tin, Sheet-iron, Copper-plate Worker* (H. C. Baird Co., N. Y.).
 Broemel and Daugherty: *Sheet Metal Workers' Manual* (F. J. Drake & Co., Chicago).
 Daugherty: *Essentials of Sheet Metal Work and Pattern Drafting; Elementary and Advanced Courses for Vocational Schools* (Drake).

- Longfeld: *Sheet Metal Drafting, Prepared in the Extension Division of the University of Wisconsin* (McGraw-Hill).
 Osborn: *XX Century Sheet Metal Workers: A Modern Treatise on Modern Sheet Metal Work* (American Artisan).
Armco in Pictures and Fact, Including a Comprehensive Sheet Metal Reference (American Rolling Mill Co., Middletown, O.).
Emergency War Training for Sheet Metal Working, etc., Feb., 1918, Bulletin No. 8 (Government Printing Office).
 Magazines:
The American Artisan, Chicago, Ill.
Sheet Metal Worker, New York.

10. BUSINESS

- Allen: *Business Employments* (Ginn).
 Anderson, Ross, and Staples: *Clerical Practice* (American Book Co.).
 Barrett: *Modern Methods in the Office* (Harper).
 Brisco: *Economics of Business* (Macmillan).
 Cadwallader: *Business Forms and Customs for Everyday Use* (Winston).
 Cahill: *Office Practice* (Macmillan).
 Cody: *How to Do Business by Letter* (Chicago School of English).
 Cooper: *How to Prepare for Civil Service* (Gregg).
 Davis and Ilingham: *Business English and Correspondence* (Ginn).
 Hagar: *Applied Business English and Correspondence* (Gregg).
 Huffcut: *Elements of Business Law* (Ginn).
 Klein: *Bookkeeping and Accounting* (Appleton).
 Lennig: *Filing Methods* (M. A. Lennig, 2304 Spruce St., Phila.).
 Monroe: *Making a Business Woman* (Holt).
 Nichols: *Junior Business Training* (American Book Co.).
 Saunders: *Letters to a Business Girl* (Laird & Lee).
 So Relle: *Office Training for Stenographers* (Gregg).
 So Relle: *Secretarial Studies* (Gregg).
 Stephenson: *Principles and Practices of Commercial Correspondence* (Pitman).
 Stockwell: *Essential Elements of a Business Character* (Revell).
 Teller and Brown: *First Book in Business Methods* (Rand McNally).
 Whigam: *Essentials of Commercial Law* (Gregg).
 Wilkes, York, and Terrill: *Elementary Training for Business* (Ronald Press).
 Yawman & Erbe: *Modern Filing* (Yawman & Erbe Mfg. Co., N. Y.).

11. SALESMANSHIP

- American Silk Journal: *A Dictionary of Silk Terms*.
 Aspley: *Field Tactics for Salesmanship* (Dartnell).

- Bennett: *Cotton Fabrics Glossary* (Bennett).
 Bennett: *Woolen and Worsted Fabrics Glossary* (Bennett).
 Calkins: *The Business of Advertising* (Appleton).
 Calkins and Holden: *Modern Advertising* (Appleton).
 Collins: *Putnam's Handbook of Buying and Selling* (Putnam).
 Federal Board for Vocational Education: *Retail Selling*, No. 22;
Survey of Junior Commercial Occupations, No. 54.
 Fisk: *Retail Selling* (Harper).
 Fowler: *Practical Salesmanship* (McClurg).
 Goldenberg: *Lace: Its Origin and History*.
 Hollingworth, Parsons, etc.: *Principles of Advertising* (Ronald).
 Hotchkiss: *The Manual of Successful Storekeeping* (Doubleday Page).
 Ivy: *Elements of Retail Selling* (Macmillan).
 Leigh: *The Human Side of Retail Selling* (Appleton).
 Moody: *Men Who Sell Things* (McClurg).
 Neystrom: *Retail Selling and Store Management* (Appleton).
 Norton: *Retail Selling* (Ginn).
 Sidis: *Suggestion* (Appleton).
 Tarde: *Laws of Imitation* (Henry Holt & Co.).

12. COMMERCIAL DESIGN

- Bridgman: *Constructive Anatomy* (Bridgman).
 Bridgman: *One Hundred Hands* (Bridgman).
 Brown: *Applied Drawing* (Atkinson Mentzer).
 Crane: *Line and Form* (Bell).
 Dow: *Composition* (Doubleday Page).
 Lutz: *Practical Drawing* (Batsford).
 Oswald: *Benjamin Franklin: American Printer* (Doubleday Page).
 Rhead: *Principles of Design* (Batsford).
 Sherboro: *Making Type Pay* (Century).
 Vanderpool: *Human Figure* (Inland Printer).

13. GARMENT DESIGN

- Croonborg: *Sartorial Art* (Croonborg Pub. Co.).
 Mitchell: *Garment Design* (Mitchell Pub. Co.).
 Regal: *Tailor and Cutter* (Fashion Pub. Co.).
 Monthly Publications:
American Gentleman (American Fashion Co.).
Croonborg's Sartorial Art Journal (Croonborg Pub. Co.).
International Tailor (International Tailor Co.).
Manufacturer and Clothier Journal (Manufacturer and Clothier Pub. Co.).
Mitchell's Journal (Mitchell Pub. Co.).

14. LAUNDRY

- Downing: *Problems of the Laundry Power Plant* (Troy Laundry Machinery Co., Chicago).

- Elledge and Wakefield: *Conservation of Textiles* (Laundry Owners Association, La Salle, Ill.).
 Turner: *Study of Fabrics* (Appleton).
Laundry Age, official organ (Laundry Owners Association, East Stroudsburg, Pa.).
Opportunities in the Power Laundry Industry as a Vocation (Laundry Board of Trade, N. Y.).
The Starchroom Journal (Starchroom Pub. Co., Cincinnati).

15. HOME-MAKING

- Abel: *Successful Family Life on Modern Income* (Lippincott).
 Aiken: *Home Nursing* (Saunders).
 Bailey: *Domestic Science Principles and Application* (Werb Pub. Co.).
 Balderston: *Housewifery* (Lippincott).
 Baldt: *Clothing for Women* (Lippincott).
 Bevier: *The House* (American School of Home Economics, Chicago).
 Broadhurst: *Home and Community Hygiene* (Lippincott).
 Buchanan: *Household Bacteriology* (Macmillan).
 Campbell: *Household Economics* (Macmillan).
 Chamberlain: *Thrift and Conservation* (Lippincott).
 Clader and Mann: *Elementary Laundry Work* (Atkinson Mentzer).
 Clark: *Domestic Science* (Little Brown).
 Conley: *Principles of Cooking* (American Book Co.).
 Daniels: *Furnishing the Modest Home* (Atkinson Mentzer).
 Dennett: *The Healthy Baby* (Macmillan).
 Donhan: *Spending the Family Income* (Little Brown).
 Dooley: *Textiles* (Heath).
 Farmer: *Boston Cooking School Book* (Little Brown).
 Frederick: *The New Housekeeping* (Doubleday Page).
 Gibbs: *Household Textiles* (Whitcomb & Barrows).
 Greer: *Text Book of Cooking* (Ginn).
 Gruenberg: *Sons and Daughters* (Federation for Child Study).
 Gruenberg: *Our Child Today and Tomorrow* (Lippincott).
 Hunt: *What Shall We Read to Our Children?* (Houghton Mifflin).
 Hunt: *Home Problems from a New Standpoint* (Whitcomb & Barrows).
 Hill: *Cook Book for Nurses* (Whitcomb & Barrows).
 Hill: *The New Public Health* (Macmillan).
 Izor: *Costume Designing and Home Planning* (Atkinson Mentzer).
 Jack: *The Art of Laundry Work* (Jack Pub. Co.).
 Johnson: *Domestic Science* (Burton Pub. Co.).
 Kinne and Cooley: *Foods and Household Management* (Macmillan).
 Kinne and Cooley: *Shelter and Clothing* (Macmillan).
 Lark: *The Care of a House* (Macmillan).

- Lord: *Getting the Worth of Your Money* (Harcourt Brace).
- McCullem: *The American Home Diet* (Matthews).
- McGowan and Waite: *Textiles and Clothing* (Macmillan).
- Matthews: *Textile Fibres* (Wiley).
- Marsh: *Home Nursing* (Blakiston).
- Morris: *Household Science and Arts* (American Book Co.).
- Parsons: *Interior Decoration* (Doubleday Page).
- Pattee: *Practical Dietetics* (Pattee).
- Powell: *Successful Canning and Preserving* (Lippincott).
- Quinn: *Planning and Furnishing the Home* (Harper).
- Richards: *Cost of Living* (Whitcomb & Barrows).
- Richards: *Food Material* (Whitcomb & Barrows).
- Rose: *Feeding the Family* (Macmillan).
- Savage: *Food Poison and Food Inspection* (Macmillan).
- Taber: *The Business of the Household* (Lippincott).
- Van Rensselaer and Rose: *Manual of Homemaking* (Macmillan).
- Watson: *Textiles and Clothing* (American School of Home Economics).
- Weigley: *Foods and Sanitation* (Row Peterson).
- Wilkinson: *Story of the Cotton Plant* (Appleton).
- Williams and Fisher: *Elements and Theory of Cooking* (Macmillan).
- Wilson: *Handbook of Domestic Science and Domestic Arts* (Macmillan).
- Wood: *Foods of the Foreign Born in Relation to Health* (Whitcomb & Barrows).
- Woolman: *A Sewing Course* (Lippincott).
- Woolman: *Clothing: Choice, Care, and Cost* (Lippincott).
- Woolman and McGowan: *A Study of Textiles* (Macmillan).

16. DRESSMAKING

- Burtak: *Woman's Decoration* (Dodd Mead).
- Casey and Small: *Cloth and Its Uses* (Ginn).
- Coates Pictorial: *American Dressmaking Step by Step*.
- Davis Press Co.: *School Arts Magazine*.
- Denny: *Fabrics and How to Know Them* (Lippincott).
- Fales: *Dressmaking* (Scribners).
- Hammond: *Industrial Drawing for Girls*.
- Hanna: *Pattern Making*.
- Hapgood: *Clothing*.
- Hill: *Principles of Correct Dress*.
- Lafflin: *Complete Dressmaking with Samples of Millinery*.
- Lefebure: *Les Points de France* (Metro-News-Art).
- Parsons: *Psychology of Dress*.
- Traphagen: *Costume Design and Illustrations* (Wiley).
- Twines: *Sewing and Textiles* (Appleton).
- Young: *Student's Manual of Fashion Drawing* (Wiley).
- Zion Lace Industries: *Romance of Lace* (Marshall Field).

17. MILLINERY

Lyon: *Modern Millinery* (Millinery Trade Pub. Co.).
Millinery Review (magazine).
Illustrated Milliner (magazine).

18. NOVELTY WORK

Magazines

Embroidery Books Quarterly—Ladies' Home Journal (Curtis Pub. Co., Phila.).
Embroidery Book Quarterly—Pictorial Review.
Illustrated Needlework Quarterly (Woman's Work Magazine Co., Chicago).
Modern Priscilla Monthly (Priscilla Co., Boston).
Needle Art Quarterly (Butterick Pub. Co.).
Ribbon Art Quarterly, endorsed by Silk Association of America (Ribbon Art Pub. Co., N. Y.).

19. CIVICS

Ashley: *New Civics* (Macmillan).
Blachly and Oatman: *Everyday Citizenship* (Merrill).
Davis and McClure: *Our Government* (Laidlaw).
Dunn: *The Community and the Citizen* (Heath).
Dunn and Harris: *Citizenship in School and Out* (Heath).
Field and Nearing: *Community Civics* (Macmillan).
Hill: *Junior Citizen* (Ginn).
Howard and Brown: *The United States: Its History, Government, and Institutions* (Appleton).
Hughes: *Community Civics* (Allyn).
Leavitt and Brown: *Elementary Social Science* (Macmillan).
Marshall and Lyon: *Our Economic Organization* (Macmillan).
McCarthy, Swan, and McMillan: *An Elementary Civics* (Barnes).
Plass: *Civics* (Heath).
Towne: *Social Problems* (Macmillan).
Tufts: *The Real Business of Living* (Holt).
Turkington: *My Country* (Ginn).
U. S. Bureau of Education: *Lessons in Community and National Life*.
Woodburn and Moran: *Citizenship and Republic* (Longmans).
Ziegler and Jaquette: *Our Community* (Winston).

20. HYGIENE

Broadhurst: *Home and Community Hygiene* (Lippincott).
Collins and Greenwood: *The Health of the Industrial Worker* (Blakiston).
Fisher: *How to Live Long* (Metropolitan Life Insurance Co.).
Gulick: *The Efficient Life* (Doubleday).

- Hill: *The New Public Health* (Macmillan).
McCarthy: *Health and Efficiency* (Holt).
Moore: *Keeping in Condition* (Macmillan).
Overlook: *The Working People: Their Health and How to Protect It* (Mass. Health Book Pub. Co.).
Price: *Hygiene and Public Health* (Lea & Febiges).
Price: *The Modern Factory* (Wiley).

APPENDIX B

TYPICAL JOB INSTRUCTION SHEETS

The form of the job instruction sheet and the use to which it is put will vary considerably with the nature of the subject-matter and the intelligence of the pupils. It is only through experiment and repeated revision that effectiveness in this type of instruction can be approached. The following sheets, drawn from a number of different schools, illustrate some of the best efforts of those who sponsor them.

1. A blank form for the writing of job instruction sheets.
2. Machine shop practice and wood-working: shank of T rest bracket, and miter-box.
3. Wood-working: a writing-stand and a cutting-board.
4. Wood-working: laying out a common rafter.
5. Electric wiring: laying out bell system and fishing.
6. Auto mechanics: valve setting.
7. Trade drawing: the use of material and making a simple floor-plan.
8. Typewriting: first lesson.
9. Office practice: folding letters and bills.
10. Bookkeeping: voucher department.
11. Salesmanship: receiving stock.
12. Novelty work: washable bag.
13. Garment design: drafting front of knickerbockers.
14. Home-making: sewing.
15. Home-making: millinery.
16. Home-making: care of apartment.
17. General lessons: civics.
18. General lessons: vocational guidance.

1.

A BLANK FORM FOR THE WRITING OF JOB INSTRUCTION SHEETS

This form indicates the various kinds of information which may be taught in relation to any one job. It is printed on a card of convenient size so that teachers may fill in the required information. The form was devised by C. L. Kulp, Director of Part-time and Evening Schools in Ithaca, N. Y.

GENERAL INFORMATION JOB NO.....

JOB OF..... INDUSTRY.....

1. Job Specifications (Requirements)
 - a. Education (Grade Completed).....
 - b. Physical Requirements.....
 - c. Sex and Age.....
 - d. Personality.....
 2. Community Importance (Estimated) A, B, C, D, E, F*.....
 3. Employment, Steady or Seasonal (Check One)

Wage \$.....per week Hours.....per week

Field Diminishing or Growing.....

Demand
 4. Working Conditions:
 - a. Hygienic, A, B, C, D, E*
 - b. Moral, A, B, C, D, E*
 - c. Occupational Dangers.....
 - d. Welfare Work Carried on by Employer.....
 5. Expectation:
 - a. Job, Permanent.....
 - b. Job, Temporary.....
 - c. Promotional Possibilities.....
 6. Labor Legislation particularly applicable to job; as, prohibitive employment, hours of labor, operation of machines, physical examination, etc. (See bulletin, New York State Labor Law, 1920).....
- * Remarks: A = 90-100: B = 80-90: C = 70-80: D = 60-70, etc.;
Check one.

JOB ANALYSIS

OPERATION	STEPS IN EACH OPERATION	H	M

NOTE:—H = Human Operations, M = Machine Operations

FACE OF CARD

AUXILIARY INFORMATION

Trade Terms	MATERIALS		TOOLS	HYGIENE— SAFETY
	Name— Properties	Selection—Use		
Machine				
Operation				

TECHNICAL INFORMATION NECESSARY FOR
PERFORMING JOB

MATHEMATICS	SCIENCE	DRAWING	ANY OTHER INFORMATION
			More especially Vocational Guidance facts and references

POSSIBLE CLASSROOM CORRELATION

RELATED MATH.	RELATED ENGLISH	RELATED HYGIENE	RELATED DRAWING	REQUIRED SUBJECTS
				U. S. History, Economics, In- dustrial His- tory and Civics

2.

MACHINE SHOP PRACTICE AND WOOD-WORKING

The following two jobs, with the prefatory note, were prepared by Robert H. Rodgers, formerly Specialist in Industrial Education and Teacher Training in the New York State Department of Education, and at present holding a similar position in the Milwaukee Vocational and Continuation School.

The Job Instruction Sheet as a Practical Method of Providing the Needed Individual Instruction

The job instruction sheet is presented as a device to enable the teacher to measure up to the needs of the job in the part-time school. It cannot be conceived how any teacher could put through a program of educational work under continuation school conditions and have it terminate successfully without making use of individual instruction sheets of some form.

Job instruction sheets should be organized on the unit plan. A job may be the basis of organization, or preferably, an operation or group of operations. The latter is recommended in that it will provide a very definite piece of work for a given class period.

The unit plan incorporates not only the occupational activities but all the work offered in the school. It includes the practical operations of the job, the related drawing, science, and mathematics and also the English, the history, civics, economics, and hygiene. The vocational work is the core, and from it the major part of the subject-matter is developed. By this plan the shop work serves to motivate and vitalize the more academic phases of the instruction. A brief study of the attached sample job instruction sheets shows the relation between each unit and indicates most pointedly that it is not necessary to build up artificial connections. These sheets should also serve to show that there is a wealth of available material, not narrow restricted subject-matter, but material rich in real educational value and of a type that will appeal to the children found in the part-time classes.

The plan to be followed in organizing the sheets must adhere to certain fundamental educational principles. First, beginning sheets may properly be very complete with specific directions for each step, but later sheets should afford the fullest possible opportunity for self-activity. The work should be set up in the form calling for the best efforts of the students. Second, practical jobs should be selected from the occupational activities and these in turn carefully analyzed and sheets prepared on the basis of learning difficulties involved. The first sample sheet is organized around one job, an 8" grinder; the second sheet is organized around a completed miter-box.

Suggestions for Using the Job Instruction Sheets

Instruction sheets if used effectively cannot be distributed to students in an indiscriminate manner. Teachers should endeavor to become as

fully acquainted with the individual needs of pupils as possible and on the basis of this knowledge allot sheets to meet their specific needs. In many instances it will be discovered that the student can profitably undertake the practical work on the sheet but is not able to handle much of the trade mathematics, English, and drafting. It is recommended that supplementary drill work or preliminary assignments be incorporated as a part of every instruction sheet to meet this special problem. The sample sheets have on them drill material in the case of trade mathematics and English.

Instruction sheets should in no way lessen the responsibility of the teacher for personal help and assistance to students. If the sheets merely serve as directions for work, the instruction becomes formal and distinctly unnatural. It must always be remembered that these sheets are job instruction sheets with the emphasis on the instruction. If they are not so prepared and used, they will degenerate into factory job sheets.

It will always be necessary for the teacher to render assistance and encourage and develop on the part of the student ability to attack and carry through problems. The use of the sheets adds rather than lessens the responsibility of the teacher for close follow-up work, individual help, careful checking of results, and recording of accomplishment.

An essential to the successful utilization of the sheets is a working library. A small carefully selected collection of books in the fields covered by the instruction given in the part-time school should be in every class-room. As an example, it is recommended that the following books and magazines be provided for the machine shop work and the other subjects presented on the first attached sample instruction sheets:

- 2 copies, *Machine Shop Primer*, Stanley and Colvin.
- 1 copy, *American Machinists' Handbook*.
- 5 copies, *How to Run a Lathe*, South Bend Lathe Works.
- 5 copies, *First Year Lathe Work*, South Bend Lathe Works.
- 3 copies, *Machine Shop Practice*, Kaup.
- 3 copies, *Mathematics for Machinists*, Burnham.
- 1 subscription, *American Machinist*.
- 5 copies, *Trade Foundations*, Rodgers and others.
- 3 copies, *Mechanical Drawing for High Schools*, French and Svensen.
- 3 copies, *Safety First for Vocational Schools*, University of the State of New York.
- 3 copies, *Hygiene for the Worker*, Tolman.
- 5 copies, *Every Day English Writing*, Stoddart.
- 5 copies, *The Worker and His Work*, Center.

It is also recommended that some form of note-book be kept by all students in the part-time classes. Teachers should standardize the form and certain requirements as to appearance and the minimum content. The method of collecting the material and its extent and scope beyond the minimum requirements should be left entirely to the initiative of the individual student. Frequent suggestions by the teacher should insure the note-book's being a collection of very valuable material,

one in which a great deal of pride is taken by the boys and girls, and not, as it sometimes happens, a rather voluminous scrap-book of miscellaneous material of rather questionable value.

Specific Comment on the Accompanying Job Instruction Sheets

It is recommended that each sheet be prepared on the basis of operations that would require one class period to complete. This would insure a very specific portion of instruction being offered at each session of the class. The first accompanying sample sheet has not adhered closely to this plan. The actual work involved on the T bracket might be accomplished by an exceptional boy in the time allotted in the machine shop on a given day. The work outlined under the technical, auxiliary, and academic subjects far exceeds what might be accomplished in one school day by any part-time pupil. It is estimated that this latter material will provide instruction for at least four periods of four hours each. These sample sheets were intentionally loaded to show the wealth of available material. The sources of the material used in the model are given under each topic. Many other sources are also available, but it will require some little time and effort to discover them. The sample sheets on the building trades unit were prepared to cover what an average pupil might be expected to accomplish in one four-hour school period.

In conclusion, it is not necessary to call further attention to the pertinent fact that the organization of job instruction sheets involves a large amount of work. The sheets are not available to-day and will only be so as the teachers in the field assume the responsibility for organizing their instructional material in that form. The preparation of the instructional material on the unit plan will insure an elimination of much of the poor and indifferent teaching and result more nearly in the part-time schools becoming positive individual service agencies. It is hoped that the accompanying type sheets will point the way and result in a state-wide attack of a real job. The success of part-time education is now a class-room problem.

MACHINE SHOP PRACTICE JOB INSTRUCTION SHEET

Unit No. 1.

Metal Trades—Machine Shop

JOB—Rough turn the shank of T rest bracket for 8" Grinder.

Operations

Note: Instructor will demonstrate to class or group the oiling and care of lathe, adjusting speed, stopping and starting, locating centers, placing job in lathe, adjusting tools, taking first cut, setting and using calipers.

1. Chalk end of casting and locate centers by means of a center square or dividers.
2. Punch centers at the intersection of scribed lines.
3. Test trueness of centers by placing casting in lathe between centers; revolve by hand and hold piece of chalk against revolving surface.

Related Drafting

Note: Teacher will demonstrate to entire class the placing of paper on board, sharpening of pencil, use of instruments, layout of sheet, simple conventions, and drawing of simple job.

1. Make a two-view free-hand working drawing on cross-section paper of a casting $\frac{3}{4}$ " in diameter and 3" long.
2. Make a two-view free-hand working drawing on cross-section paper of a casting $1\frac{1}{4}$ " in diameter, $1\frac{3}{8}$ " in length, with a $\frac{3}{4}$ " diameter hole running through the long way.
3. Prepare a full-size mechanical drawing, fully dimensioned, of both castings. Place both drawings on one sheet.

Read: *Mechanical Drawing for High Schools*, pp. 2-6; 21-30.

Trade Science

1. Why are the bearings of the lathe, the screw, and the gears oiled frequently?
2. Why is it necessary in setting the cutting tool in the holder to have it a slight amount higher than the center of the revolving work?
3. Describe what takes place when the revolving work is running too fast and the tool is put up against it.

Read: *How to Run a Lathe*, pp. 19, 30.

Trade Terms

1. Place in your note-book the meaning of the following terms:

Running hot	Cut under the
High spots	scale
Shank of casting	Tool above center
Cored end	Finish
Boss	Round turn

Tools and Materials

1. Tools. Select and cut from catalogues and trade journals good types of the following machines and tools and paste them in your note-book. Place the name under each.

Engine lathe	Machinist's
Lathe head-stock	hammer
Lathe tail-stock	Center square
Lathe carriage	Dividers
Facing tool	Scratch
Diamond point tool	Scale
Drill chuck	Outsid calipers
Punch	Common lathe dog
	Clamp lathe dog

Combination drill and countersink

Read: *Machine Shop Primer*.

2. Materials. Prepare for your note-book the following:
Where is iron ore found?
Describe how iron ore is changed to pig-iron.
How does pig-iron become cast-iron?

Read: *Trade Foundations*, pp. 207-208.

Vocational Guidance

1. How important is the work of the machinist?
2. What are some of the things that machinists make or work upon?
3. How many machinists are there in the U. S.? In your city?
4. What are some of the mental and physical strains involved in the daily work of a machinist?
5. What effect has specialization upon the work of the machinist?
6. What are some of the particular dangers in this work?

Read: *Trade Foundations*, pp. 200-204.

*Trade Mathematics**Preliminary Drill Problems*

Note: This material is to be used where student is not ready for advanced work.

1. At what sizes would you set a pair of dividers to scribe circles of the following diameters:
 $\frac{5}{8}$ "; $\frac{3}{4}$ "; $1\frac{1}{8}$ "; $1\frac{1}{4}$ "; $1\frac{3}{8}$ "; $\frac{7}{8}$ ";
 $2\frac{3}{8}$ "; $1\frac{1}{2}$ "; $1\frac{5}{8}$ "; $1\frac{3}{4}$ "; $1\frac{7}{8}$ "
2. Give the decimal equivalents of the following:
 $\frac{1}{4}$ "; $\frac{1}{2}$ "; $\frac{3}{4}$ "; $\frac{1}{8}$ "; $\frac{3}{8}$ "; $\frac{5}{8}$ ";
 $\frac{7}{8}$ "
3. The rough casting for the T bracket weighs $4\frac{3}{4}$ pounds; the finished casting weighs $4\frac{3}{8}$ pounds; what part of a pound was machined off; how many ounces?

Job Problems

1. The rough diameter of the shank to be turned is $1\frac{1}{8}$ "; what is the radius at which you will set the dividers to scribe arcs on the chalked end to locate exact centers?
2. If the rough diameter of the shank of the casting is $1\frac{1}{8}$ " and the finished diameter is $\frac{3}{4}$ ", how much material is to be removed? If the material was removed at one cut, what would be the depth of the cut?
3. Look at drawing of bracket and figure the over-all length of the finished casting.
4. If the spindle of the lathe revolves at 135 revolutions per minute, what would be the surface speed of 1" cylindrical casting? $1\frac{1}{2}$ " cylindrical casting?

Use the following formula:

$$D \times 3.1416 \times \text{R.P.M.} = \text{S.S. in feet per minute.}$$

D = Diameter of job.

R.P.M. = Revolutions per minute of spindle.

S.S. = Surface speed.

Reference: *Mathematics for Machinists.*

Safety and Hygiene

Prepare answers and place in a note-book the following:

1. Tell briefly the safest way in which to hold the punch and hammer when locating centers.
2. Describe what might happen if tail stock was not securely clamped when you attempted to drill centers.
3. Why is it best to stop lathe when adjusting belt and shifting gears?
4. Why is it not safe to set the cutting edge of the tool below the center of the work?
5. Tell why the hands should not be placed upon revolving work or parts of the machine.
6. What are some of the reasons for placing safety first signs about the shop?
7. How would you proceed to care for a cut upon the hand; a bruised finger with blood gathering under the nail?
8. Why is it necessary to deposit all oily waste in metal cans?
9. Describe dangers to operators of machines of loose sleeves, aprons, coats, dangling neckties.
10. State briefly the importance of good health to a worker.

Read: *Safety First for Vocational School*; University of the State of New York, pp. 29-31; 35-36. *First Year Lathe Work*; South Bend Lathe Works, pp. 6-15. Tolman: *Hygiene for the Worker*, p. 187.

English

Preliminary Drill Assignment

Note: To be used where student is not ready for the regular work.

1. Rules for capitals.
 - Use a capital to begin
 - The first word of a sentence.
 - Names of places, months, days, holidays, the Deity.
 - The words I and O.
2. Rules for punctuation.
 - Use a period
 - At the end of a statement or command unless it is exclamatory.
 - After abbreviations and initials.
 - Use a question mark after a direct question.
 - Use a comma to separate
 - The names of a person or thing addressed.
 - Explanatory words, phrases and clauses.
 - Words, phrases, and clauses in series not connected by a conjunction.
3. Correct the following:
 - my job is on a lathe that was made in syracuse
 - i entered school monday september the twelfth
 - the governor of new york has declared armistice day a holiday
 - is mr e d smith the teacher of drawing in the building
 - wm jones the boy at that desk is the best base ball player
 - swimmer and foot-ball player in school

Regular Assignment

1. Read "The Open Hearth" in *The Worker and His Work*, pp. 178-191.
 - Name the principal characters of the story and the work that each had to do.
 - Prepare a short story on the tapping of a heat.
 - Look up in the dictionary the meaning of the following words, and write them in your note-book: terra firma; cavernous; orbs; seething; silhouetted; dismal; circumspection; cronies; jest; honeycombs.

Civics, Industrial and American History, and Economics

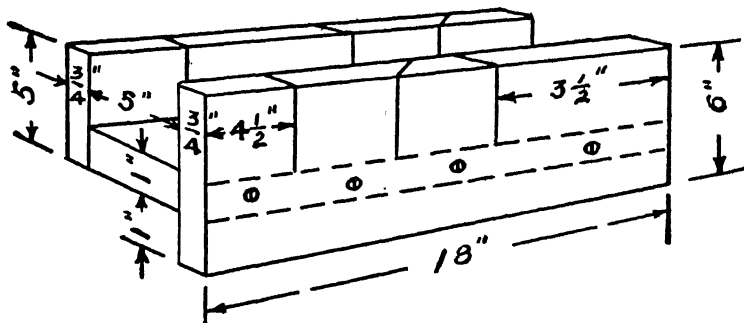
Note: This suggested material should be used for class or group discussion.

1. What was there about "Pete the Open Hearth Man" that made him so well liked in the plant?
2. What was there about the "Boss" that made you feel that you would not like to work for him?
3. List and discuss some of the things that make men respected and well liked by their fellow-workers.

WOODWORKING JOB INSTRUCTION SHEET

Unit No..... Building Trades—Carpentry
 JOB—Dress material for miter-box to following dimensions:

- 1 Pc. Basswood, $\frac{3}{4}$ " x 6" x 18"
 1 Pc. Basswood, $\frac{3}{4}$ " x 5" x 18"
 1 Pc. Basswood, 1" x 5" x 18"

*Operations*

Note: Instructor will demonstrate to group or class the use of the rule, setting of plane bit, use of plane, marking gauge, cross-cut saw and try square and also have prepared 3 pieces of stock cut to rough dimensions for each pupil.

1. Select any one of the three pieces of stock and pick the best face.
2. Place piece on bench against stop with selected face up and grain in the direction of planing.
3. True up face of piece with jack plane, testing for trueness with edge of plane, square or straight edge, and mark with a face mark. Call this the *working face*.
4. Clamp piece in vise with best edge up and grain in direction of planing.
5. Plane the edge true and at right angles to working face, using the try square and straight edge for testing.

Mark with face mark and call *working edge*.

6. True up and mark with bench marks the working face and working edge of the second and third pieces of stock.
7. Set marking gauge to $\frac{3}{4}$ " and with head against the working face mark with a clean cut line on both edges of stock to be used for the sides of the miter-box a thickness line.
8. Set marking gauge to 1" and mark bottom piece of box in similar manner.
9. Plane all three pieces to the thickness indicated by gauge lines, testing for trueness as the finishing cuts are taken.
10. Set marking gauge to 5" and

Operations—Continued

- gauge the bottom and the narrow side to that width.
11. Set marking gauge to 6" and gauge the remaining side to that width.
 12. Plane second edge of all three pieces to gauge lines and test with try square and straight edge.
 13. With knife, rule and try square lay off from working edge 18" on working face of each piece. Lines should not be squared across closer than $\frac{1}{4}$ " from ends.
 14. Hold stock on bench hook and with cross-cut hand-saw cut pieces to length, in each case sawing just outside of knife line in the waste stock.

Read: *Trade Foundations*, p. 289, paragraphs 16, 24, 25, 32, 58, 65; *Essentials of Woodworking*, pp. 36-46.

Related Drafting

Note: Instructor will demonstrate to the group or class the placing of paper on board, the sharpening of pencil, quality of lines to be drawn and the conventions to be observed on the sheet.

1. Make a three-view free-hand working drawing on cross-section paper of the miter-box, using a scale of approximately 3" to the foot. Place all necessary dimensions on the drawing.

Read: *Mechanical Drawing for High Schools*, pp. 2-6, 21-30.

Trade Science

Prepare for your note-book the following:

1. Why is it that lumber is not immediately used after being cut from the logs, for buildings and furniture?

2. What are two ways of preparing lumber after being cut so it can be used for carpentry and cabinet work?
3. Describe what happens when lumber is seasoning.

Read: *Trade Foundations*, p. 186.

Trade Terms

Place in your note-book the meaning of the following terms:

Face mark	Warped
Working face	Scale, 3" to 1'
Working edge	Grain
Miter	

Read: *Trade Foundations*, p. 185; *Essentials of Woodworking*, p. 40.

Tools and Materials

1. Select and cut from trade journals or catalogues the following carpenters' tools and place the name under each; jack plane, try square, marking gauge, hand-saw, back-saw and bench hook.
2. Write for your note-book five facts about the nature of basswood.
3. What are some of the things basswood is used for?
4. Why were you instructed to select the best face of the piece of stock to plane first?

Read: *Trade Foundations*, p. 198.

Vocational Guidance

Prepare for your note-book the following:

1. Why is the work of the carpenter very important?
2. Name some of the things a carpenter does during a day's work.

Read: *Trade Foundations*, p. 83.

*Trade Mathematics**Preliminary Drill Problems*

Note: The drill problems are prepared for those students not ready to take up the job problems.

1. Give the decimal equivalents of the following:

$\frac{1}{8}$ " ; $\frac{1}{4}$ " ; $\frac{3}{8}$ " ; $\frac{1}{2}$ " ; $\frac{5}{8}$ " ; $\frac{3}{4}$ " ; $\frac{7}{8}$ "

2. Add the following dimensions as found on the rule:

$$1\frac{1}{4}" + 1\frac{1}{4}" =$$

$$\frac{7}{8}" + 1\frac{1}{4}" =$$

$$1\frac{3}{8}" + 1\frac{1}{2}" =$$

$$1\frac{3}{4}" + \frac{5}{8}" =$$

$$1 \text{ foot} + 3\frac{3}{4}" =$$

3. Subtract the following dimensions:

$$\frac{7}{8}" - \frac{1}{4}" =$$

$$1\frac{3}{8}" - \frac{5}{8}" =$$

$$2\frac{1}{8}" - \frac{3}{4}" =$$

$$5\frac{5}{8}" - 3\frac{7}{8}" =$$

$$1 \text{ foot} - 6\frac{3}{8}" =$$

4. Divide the following dimensions into equal parts:

$$5" \div 2 =$$

$$6" \div 4 =$$

$$7" \div 4 =$$

$$14" \div 8 =$$

$$9" \div 8 =$$

Job Problems

1. What part of a foot are the following dimensions? Draw a line for each part of a foot indicated and write answer above it; for example:

$$3" \quad \underline{3" = \frac{1}{4}"} \quad$$

9" ; $1\frac{1}{2}$ " ; $4\frac{1}{2}$ " ; $10\frac{1}{2}$ " ; $7\frac{1}{2}$ "

2. The mechanical drawing of the miter-box is to be made to a scale of 3" to 1 foot. Work out on that scale the following dimensions:

6" ; 18" ; 1" ; 5" ; $6\frac{1}{2}$ " ; $\frac{3}{4}$ "

3. Use the following formula to figure the board feet in the examples:

$$\text{Bd. ft.} = \frac{\text{No. of pcs.} \times \text{L} \times \text{W} \times \text{T}}{12}$$

L = Length of board in feet

W = Width of board in inches

T = Thickness of board in inches

$$3 \text{ Pcs. } 1" \times 12" \times 16"$$

$$6 \text{ Pcs. } 1\frac{1}{4}" \times 10" \times 14"$$

$$4 \text{ Pcs. } \frac{3}{4}" \times 14" \times 12"$$

Safety and Hygiene

Prepare for your note-book the following:

1. In sawing off the ends of the stock for the miter-box the hand-saw jumps from the piece and cuts the thumb of the left hand; describe how the work and the saw should be held to prevent such an accident.
2. How would you proceed to care for a cut as described above?
3. Name several things that you consider essential to your own health.
4. Why is physical fitness an asset to you as a worker?

Read: *Hygiene for the Worker*, p. 187.

*English**Preliminary Drill Assignment*

Note: To be used where student is not ready for the regular work.

1. Study each of the correct forms below and write a sentence containing the correct expression:

Correct Use
I am not
He is not
We are not
I haven't any
We have no
I did
They did
We saw
The boys saw

Incorrect Use
I ain't
He ain't
We ain't
I haven't got none
We ain't got none
I done
They done
We seen
The boys seen

Regular Assignment

1. Read "The Toll of Big Timber" in *The Worker and His Work*, pp. 141-146.
2. Prepare for your note-book after reading the story, a description of not more than 150 words, of the felling of one of the large trees.
3. Tell in a few words what a swamper and a buckner do in the woods.

Civics, Industrial and American History, and Economics

Note: This suggested material should be used for class or group discussion.

1. Do most of the people you know work? What are some of the occupations at which they work?
2. Why do all these people work?
3. Is there any difference in working for yourself or working for an employer?
4. If an employer buys your time, what are some of the things you should give him?

Read: *Elementary Social Sciences*, pp. 21-24.

3

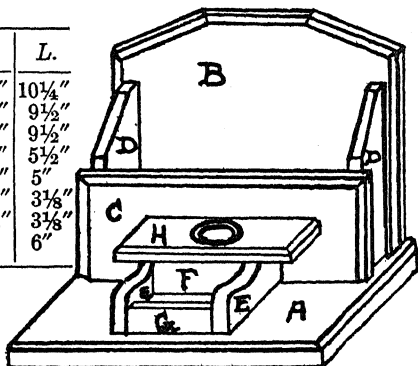
WOOD-WORKING: A WRITING-STAND AND A CUTTING-BOARD

The highly intelligent pupil can read blue-prints and instruction sheets with considerable ease, but the duller pupil experiences difficulty. For the latter it becomes necessary to break down the various operations into the simplest steps. The following job on the writing-stand indicates how, after the complete job is given on a blue-print, each part is treated as a separate job. In the cutting-board job the process of simplification is carried still further. The charts referred to give pictures of the hands in various positions. They are hung on the wall where the pupil can see them readily. They serve as a substitute for the personal demonstration of the teacher. These two jobs were worked out by Albert Boden, formerly teacher of wood-working in the East Side Continuation School, New York. They represent only the manual part of the job without giving the related work.

JOB: Writing Stand

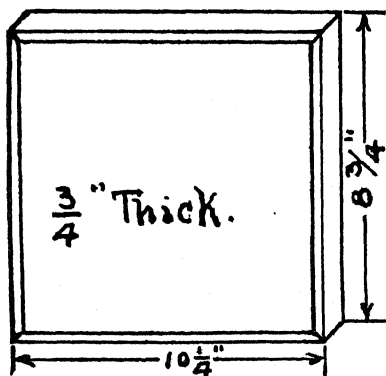
Stock Bill

Piece	No.	T.	W.	L.
A. Bottom	1	$\frac{3}{4}$ "	$8\frac{3}{4}$ "	$10\frac{1}{4}$ "
B. Back	1	$\frac{7}{16}$ "	$7\frac{1}{4}$ "	$9\frac{1}{2}$ "
C. Front	1	$\frac{7}{16}$ "	$3\frac{1}{4}$ "	$9\frac{1}{2}$ "
D. Sides	2	$\frac{7}{16}$ "	$2\frac{1}{4}$ "	$5\frac{1}{2}$ "
E. Pen supports ..	2	$\frac{7}{16}$ "	$1\frac{1}{4}$ "	5"
F. Back of pocket.	1	$\frac{7}{16}$ "	$1\frac{1}{4}$ "	$3\frac{1}{8}$ "
G. Front of pocket	1	$\frac{7}{16}$ "	$\frac{7}{8}$ "	$3\frac{1}{8}$ "
H. Bottle holder .	1	$\frac{7}{16}$ "	3"	6"



Writing Stand—Before shaping any part cut piece to sizes given in Stock Bill, following the regular steps in squaring and cutting to size.

Bottom—Piece A—Square this piece to $\frac{3}{4}$ " thick x $8\frac{3}{4}$ " wide x $10\frac{1}{4}$ " long. Do not cut chamfers until you have the other parts assembled and locations marked.



Back—Piece B—Square this piece to $\frac{7}{16}$ " thick x $7\frac{1}{4}$ " x $9\frac{1}{2}$ " long.

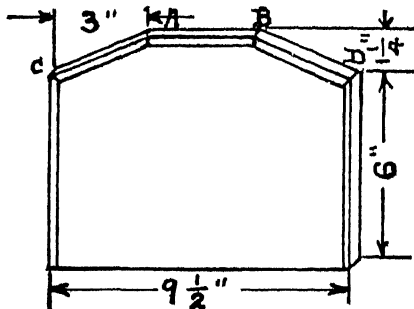
Square a line 3" from each end across the edge opposite the working edge as at A and B.

On each end square a line 6" from the working edge as at C and D.

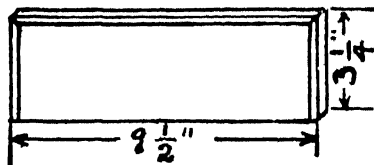
Connect C-A and B-D with lines on both faces.

Saw off the waste wood leaving about $\frac{1}{16}$ " outside of these lines.

Plane to lines.



Front—Piece C—Square this piece $\frac{7}{16}$ " thick x $3\frac{1}{4}$ " wide x $9\frac{1}{2}$ " long.



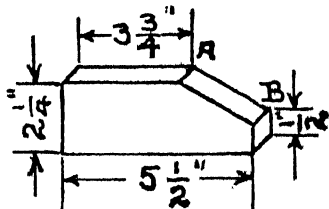
Sides—Piece D—Get out one piece large enough to make both sides.

Select the working face.

Plane the working edge; cut piece to make both sides. Then square to size as usual.

Square a line $3\frac{3}{4}$ " from the working end across the edge opposite the working edge as at A. On the end square a line $\frac{1}{2}$ " from the working edge as at B. Connect A and B with lines on both faces. Saw off the waste wood leaving $\frac{1}{16}$ " outside of these lines.

Plane to lines.



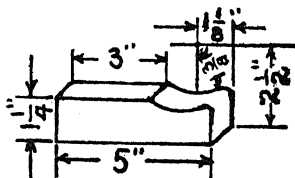
Pen Supports—Piece E— Get out one piece long enough to make both supports.

Select the working face. Plane the working edge. Plane to width.

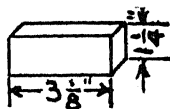
Saw one end square, measure the length (5") and saw second end square.

Repeat the above on the other support. Lay out curve as per sketch on a piece of card board to be used as a pattern.

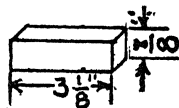
Chisel or use a half round file to shape piece.



Back of Pocket—Piece F— Square this piece to $\frac{7}{16}$ " thick x $1\frac{1}{4}$ " wide x $3\frac{1}{8}$ " long.



Front of Pocket—Piece G— Square this piece to $\frac{7}{16}$ " thick x $\frac{7}{8}$ " wide x $3\frac{1}{8}$ " long.



Bottle Holder—Piece H— Square this piece to $\frac{7}{16}$ " thick x 3" wide x 6" long.

Locate center for boring hole by dividing the length in two equal parts.

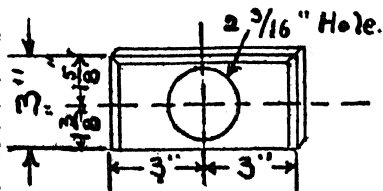
Square a line about the piece through this point.

Measure in $1\frac{3}{8}$ " from the working edge and draw a light pencil line that will cross this center line.

With the point where these two lines cross as center bore a $\frac{1}{8}$ " hole, to prevent splitting piece when using the expansive bit.

With this hole as center and the expansive bit set to $2\frac{3}{16}$ " bore the large hole.

Bore half way from each side.



Chamfering, Sandpapering and Assembling— Refer to mechanical drawing and cut $\frac{3}{16}$ " chamfers where shown; except on bottom piece. Sandpaper all surfaces except the edges and ends that form a joint. Assemble parts and mark location on bottom piece. Chamfer edge on top surface of bottom piece and assemble entire project.

JOB: Cutting Board

Getting Out Stock—Get out stock large enough to allow for dressing or cutting to size.

Examine for defects such as cracks, knots, grain and so on.

Selection and Adjustment of Tools—Inspect all tools before using.

Select the right one for the work to be done.

See that it is sharp if it is a cutting tool.

If the tool selected is the plane the following adjustments are necessary:

A. The cutting edge of the plane iron should be parallel to the bottom of the plane.

B. Set the plane to cut thin shavings. See chart #2 and #3.

1st Step—Working Face—Test with try-square and select hollow side. Mark it #1.

See chart #1.

2nd Step—Working Edge—

Plane edge smooth.

See chart #4.

Plane edge straight.

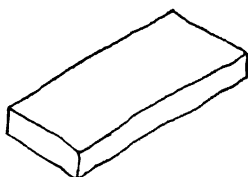
See chart #5.

Plane edge square to working face.

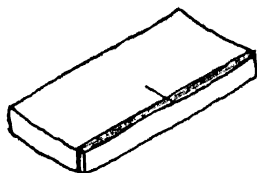
See chart #6.

Mark edge #2.

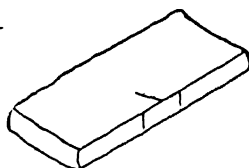
Note: Test for straightness with 2-foot steel rule and for squareness with try-square.



ROUGH STOCK



FIRST STEP



SECOND STEP

3rd Step—Working End—Before planing end gauge the width with the marking gauge or make two measurements of the width, one at each end of the board, and connect these points with a pencil line, using a 2-foot rule as a straight edge. Then cut off the corner outside of the line to prevent splitting of edge.

- | | |
|---|---------------|
| Plane working end—smooth. | See chart #7. |
| Plane working end—straight. | |
| Plane working end—square to working face. | See chart #9. |
| Plane working end—square to working edge. | See chart #8. |
| Mark end #3. | |

4th Step—Cutting to Length—Measure length from working end.

Square a line about piece at this point.

Saw off waste wood about $\frac{1}{16}$ " outside of line, using cross-cut saw.

See chart #10.

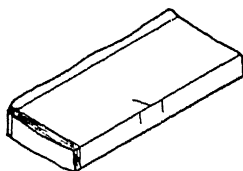
Cut off corner outside of line to prevent splitting edge.

Plane to line.

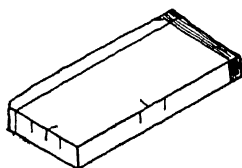
See chart #11.

Test—Same as working end.

See charts # 8 & #9



THIRD STEP



FOURTH STEP

5th Step—Cutting to Width—Measure width to be sure line is correct.

If waste wood is more than $\frac{3}{8}$ ", saw it off with a rip saw; leave about $\frac{1}{8}$ " outside of line in the waste wood for planing.

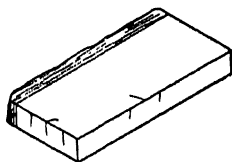
See chart #12.

Plane to line.

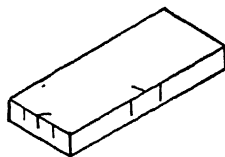
See chart #13.

Test—Same as working edge.

See charts #5 & #6.



FIFTH STEP

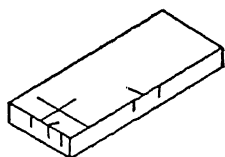


FINISHED PIECE

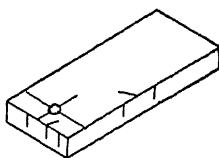
6th Step—Boring Hole for Hanging Board—Square a line 1" from working end on working face.

Divide this line in two equal parts.

At this point bore a hole, using the brace and a $\frac{3}{8}$ " auger bit. Bore until you feel point of spur coming through. Reverse piece and finish boring from other side.



LAYING OUT CENTER LINES



BORING HOLE

SIXTH STEP

7th Step—Finishing—Take a fine shaving off both faces of piece to remove dirt, mill and pencil marks. Sandpaper smooth—Use sandpaper over a block of wood. Sandpaper with the grain.

CAUTION—DO NOT stain or varnish this project.

4

WOOD-WORKING: LAYING OUT A COMMON RAFTER

Criticism is often made that jobs in wood-working shops are mere exercises and do not represent trade practice. The following sheet is given as an example of the application of the instruction sheet to practical work, even though the dimensions are not standard. The sheet was prepared by Richard Van Gaasbeek, instructor in carpentry at Pratt Institute, Brooklyn, N. Y.

JOB: Common Rafter

Lay out with steel square and fence a common rafter and cut to the following dimensions.

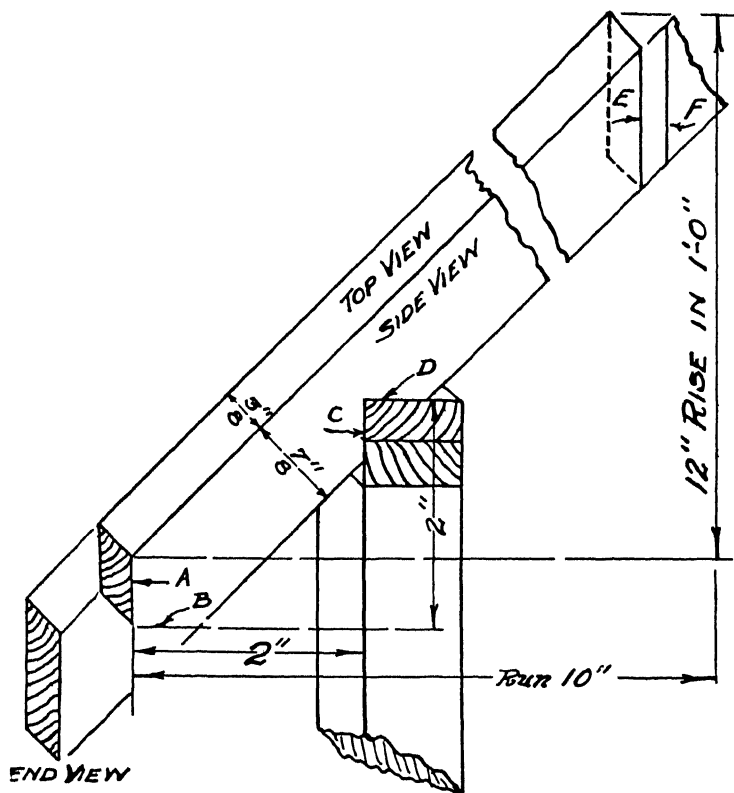
Note: This lesson was prepared to show a part of the relatable content which could be taught in connection with this lesson. An evening school teacher would be interested only in the operation and trade theory. A part-time teacher could make use of all of the material.

Specifications

- Rafter stock $\frac{3}{8}$ " x $\frac{7}{8}$ "
- Ridge $\frac{3}{8}$ " x $1\frac{1}{8}$ "
- Projection 2"
- Facia $\frac{5}{8}$ "
- Plancher level to plate level, 2"
- Pitch, 12" rise in one foot ($\frac{1}{2}$ pitch)

Key to Drawing

- A—Facia
- B—Plancher
- C—Wall line
- D—Plate level
- E—Cutting length of rafter against the ridge
- F—Extreme length of rafter to center of ridge



Operations

1. Set fence and square to proper pitch, conforming to the specifications.
2. Select top edge of stock for working edge in laying out.
3. With top edge of stock toward the operator, place the fence against the top edge with the tongue or rise to the extreme left and produce the first plumb line "A."
4. Slide the fence and square along and measure on a level line from fascia line "A," 10", the run of the rafter and produce plumb line "F," giving the extreme length to the center of the ridge.
5. Measure forward on a level line from plumb line "F" $\frac{3}{16}$ ", one-half the thickness of the ridge, and produce plumb line "E," the butt joint of the rafter against the ridge.
6. Begin again at the fascia line and measure in 2", the width of the projection, and produce plumb line "C," locating the wall line.

7. Measure down on fascia line "A" from the top edge of the rafter $\frac{5}{8}$ " and locate plancher level "B," marking on the blade of the square.
 8. Measure up from plancher level "B," measuring on a plumb line, 2", locating plate level "D."
 9. Out on line "A" for the fascia, on lines "C" and "D" for the bird's mouth and on line "E" for the butt joint against the ridge.
- Read: *A Practical Course in Roof-framing*, pp. 26, 27, 28 and 29.

Related Drafting

1. Make a full-size drawing of the rafter. Place all necessary dimensions on the drawing and letter the lines with the proper trade terms.
- Read: *A Practical Course in Roof-framing*, pp. 15, 16, 17 and 18.

Trade Science

Prepare for your note-book the following:

1. Why are roof rafters represented by center lines only?
2. Why are all measurements taken from the top edge of the rafter and either on a plumb or a level line?
3. Why must certain deductions be made from the length obtained with the steel square and fence to determine the cutting length?
4. What would happen if the measurements were taken from the bottom edge of the rafter?

Read: *A Practical Course in Roof-framing*, pp. 20 and 21.

Trade Terms

Place in your note-book the meaning of the following terms:

Run	Bird's-mouth
Rise	Projection
Pitch	Wall line
Plate level	Facia line
Plancher level	

Tools and Materials

1. Cut from trade journals or catalogues pictures of the following carpenter tools and mount them in your note-book with the name under each: steel square, try square, crosscut saw, back saw, hammer.
2. What kind of lumber is generally used for roof timbers? Why?
3. Why were you instructed to select the top working edge or crowning side of the stock for a working edge in laying out?
4. Would the labor in working and handling lumber have a bearing on the kind of lumber that would be used in roof construction?

Vocational Guidance

Prepare for your note-book the following:

1. What is the difference between joinery and carpentry?

2. What is the advantage of serving an apprenticeship in the trade?
3. Can the time of an apprenticeship be reduced or shortened by attending a trade or technical school?
4. Does a carpenter have continuous employment?
5. Is it good policy to specialize in one particular branch of a trade?

Trade Mathematics

1. Find the rise in inches per foot of run of roofs of the following heights:
 Run 12' 0" Total height 8' 0"
 Span of building 25' 0" Total height 12' 0"
 One-half span of building 13' 0" Total height 16' 6"
 - 2. What is the total run of a rafter, 2' 0" projection, span 30' 0"?
 - 3. What is the length of a rafter for one-foot run of a $\frac{1}{2}$ pitch roof?
- Read: *A Practical Course in Roof-framing*, p. 50.

Safety and Hygiene

1. What dangers are workmen subject to while working on a roof?
2. Describe the proper method for starting a saw cut so as to prevent cutting the finger.
3. What precautions would you take in caring for a cut?
4. In case of a serious cut, how would you stop excessive bleeding?
5. Is it policy to play safe in taking chances while working on a building in dangerous places?

English

Write in your note-book directions for taking the various steps or processes involved in laying out a common rafter in the sequence or order in which you laid them aside.

Civics, Industrial and American History, and Economics

1. If you were working in the trade, would you join a labor organization? Why?
2. Why do employers organize?
3. If a man hires out for a stated salary, do you think that he should give his best services to his employer for the time he is in his employment regardless of whether he thinks he is receiving adequate pay?
4. What is the Workman's Compensation Act?
5. Should a workman be required to carry a liability insurance policy?

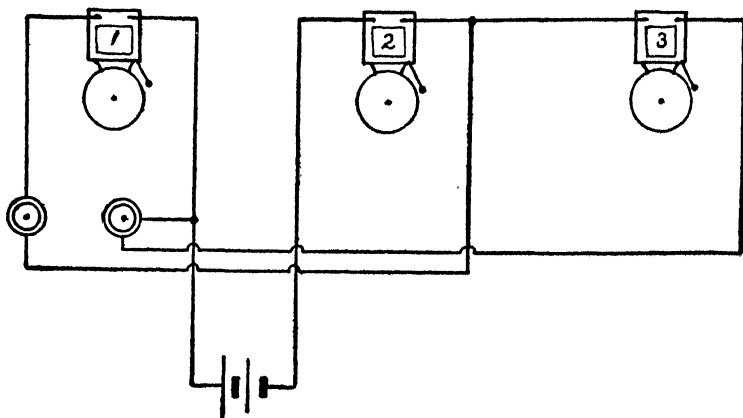
5

ELECTRIC WIRING: LAYING OUT BELL SYSTEM AND FISHING

The first of the following jobs gives simple instructions for laying out a bell job, with the related English and arithmetic. The second

job is preceded by general instructions given for all fishing jobs. The manual work in the bell job was planned by William J. Rickerby, teacher of electric wiring in the East Side Continuation School, and the related work by Daniel B. Joseph, assistant principal in the Brooklyn Continuation School. The fishing job was planned by Francis R. White, teacher of electric wiring in the East Side Continuation School.

JOB: Series Arrangement, Bells 1 and 2 Operated by One Button;
Bells 2 and 3 Operated by Another Button



Install one vibrating bell, two single-stroke bells, two push-buttons and battery.

Wiring: Wires to be run in accordance with diagram, in a neat and workmanlike manner and all connections properly made.

Operation: Pressing one button operates bells 1 and 2 in series; pressing the other button operates 2 and 3 in series.

Questions:

1. Trace out the circuit.
2. Draw a diagram showing another button added and so connected that it will ring bell 1.
3. Why are conductors insulated?
4. Describe the insulation used on annunciator wires.
5. How may the insulation be removed from annunciator wires (a) at the ends; (b) where tap is to be made?

Related Mathematics

Notice: Please follow the instructions on this card very carefully. Do everything that you are told to do and do it just the way you

are told. Please return this Instruction Sheet in the same condition that you receive it. Never write to the left of the red margin line except for the captions, that is, the titles of subjects, such as Arithmetic, English, Spelling, etc. Write to within a quarter of an inch of the red line.

1. *Name:* Write your full name in the upper right-hand corner of your paper.
2. *Official Class:* Write the name of your official class, that is, the class where you report first, and to-day's date just before your name.
3. *Last Job:* On the first two lines of your paper tell briefly just what your last job was in the Vocational Class.

Example:

My last job in E. W. I. was to install one vibrating bell, two single-stroke bells, two push-buttons and battery.

4. Line number 3 must remain blank.
5. In the margin, that is, between the left edge of your paper and the red line and on the 5th line from the top of your paper, write the word Arithmetic.
6. From line 4 and one inch from the right-hand edge of your paper draw a line down all the way for an answer column. Write the word Answers on the first line of this column.
7. Half-way between your answer column line and the red line draw a line down from line 4 to the bottom of the page.
8. Draw a line across between the red line and the answer column line on lines 5, 9, 4, 9 and 24. Now you have 10 rectangles. Number each one in the upper left-hand corner 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, etc.
9. Work one example in each rectangle. Place each answer in the answer column and find the sum of the answers. The space at the bottom below the rectangles may be used for "practice work."

Work for accuracy first, neatness second; and speed is sure to follow. Remember that incorrect work is worthless.

Problem:

There are 136 ft. of No. 18 copper wire to a pound.

How many feet of wire will there be in a coil or a roll that weighs 24 $\frac{2}{3}$ lbs.?

This is the way we reason it out:

Since there are 136 ft. to one pound, 24 $\frac{2}{3}$ lbs. will measure as many feet as 136 times 24 $\frac{2}{3}$ or 3454 $\frac{2}{3}$ ft.

Find the length of each of the following coils or rolls of No. 18 wire.

(1) 27 $\frac{3}{4}$ lbs. (2) 16 $\frac{5}{6}$ lbs. (3) 23 $\frac{4}{5}$ lbs. (4) 28 $\frac{1}{2}$ lbs. (5) 37 $\frac{1}{3}$ lbs. (6) 445 $\frac{2}{3}$ lbs. (7) 38 $\frac{8}{9}$ lbs. (8) 26 $\frac{1}{2}$ lbs. (9) 4 $\frac{1}{2}$ lbs.

Look your work over very carefully to see that you have made no mistake. If you find mistakes correct them. Now find the sum of your answers.

When you have finished turn this card over and you will find your English lesson. The English will be written on the reverse side of your paper.

Does your paper have this form? It should.

Daniel B. Joseph E. W. 2 (To-day's Date)			
My last job in E. W. I. was to install one vibrat-			
ing bell, two single-stroke bells, two push-buttons			
and battery.			
Arith.	36		ANS.
	28 5/6		

English

1. Write the number of the house and the name of the street where you are writing this letter on the first line beginning about the middle of the line.
2. Write the name of the city or town where you are when you are writing it, on the next line. Begin to write directly below the number.
3. Write to-day's date directly below the name of the city.
4. The fourth line must be blank.
5. On the 5th line beginning about a quarter of an inch from the red line, write the name of the firm to whom you are addressing this letter.
6. On the 6th line beginning about a quarter of an inch from the red line write the number of the building and the street where the firm is located.
7. On the 7th line, beginning about a quarter of an inch from the red line, write the name of the city, then a comma, then the abbreviation for the State in which the firm is located.
8. The 8th line must be blank.
9. On the 9th line, beginning close up to the red line write the salutation: "Dear Sirs"

Begin the body of the letter below the word Sirs.

You are to write to the General Electric Co., 284 State St., Schenectady, N. Y., for two hundred fifty (250) lbs. of No. 18 copper wire to be shipped to you at once by express. This is a special order which you need for some repair work, that must be done as soon as possible. Ask them to rush your order and to charge to your account with express collect.

Sign the letter "Very truly yours" and your name.

Be sure that you have spelled each word correctly and that you have obeyed the following rules of punctuation:

Every sentence should begin with a capital letter and end with a period, question mark or exclamation point.

There should be a period after each abbreviation. For example:
New York, N. Y.

66 Chrystie St.
New York, N. Y.
February 1, 1922

General Electric Co.
284 State Street
Schenectady, N. Y.

Dear Sirs:

FISHING

Subject: Fishing wires in partitions and through floors and ceilings.

Definition: Fishing—A method of running wires through walls, floors and conduits with the aid of other wires, a "snake" (a ribbon of steel) or cords, attached to the conductors and threaded or drawn through in advance.

Explanation: This system is used principally in finished houses where it is desirable to conceal all, or as much of the wiring as possible. Before this your work consisted of running wires on the surface. This method, while permitted in a good many places, is not allowed in private residences, or better class buildings.

General Instructions

These general directions apply to all the jobs in this unit, and should be learned by you before going ahead with the jobs.

You are now able to make simple diagrams on paper. Part of your credit depends upon your ability to draw diagrams. If you cannot make the diagram, refer to the file and study the diagram of the job. Make a copy of the diagram and submit it for approval before going ahead with the job.

1. When fishing inside of walls, always be sure to find the space between two studs. Studs are the upright supports of a partition or wall, to which the lath and plaster, or boards are fastened. It is necessary to find this clear space through which to fish the wires.
2. How to find the space between studs: On a plastered wall the customary way is to sound the wall by tapping it lightly with your hammer until you get a hollow sound. The more solid sounds are found over the studs. *Do not cut over these places, for if you bore a hole at these points, you will bore into the stud, and it will be impossible for you to drop your wires down.* Great care must be taken not to bore many holes in a finished wall. If you make a mistake, these holes will show. This is very bad practice. If the

wall is papered, you can't patch it. If the wall is plastered you may patch the holes with plaster. Even this is often bad because the patch is bound to show. On a wall faced with boards instead of plaster, you can often see where the nails are driven. This of course is the stud line, and the same directions apply here as on a plastered wall. If the nail heads do not show, find the spaces by tapping with the hammer the same as for plastered walls.

3. After you have found the space between the studs, bore a small hole (a half or seven-eighths inch hole will be plenty large enough) right where you are going to locate the bell, telephone, push button, or whatever other instrument or device you are going to install. This hole is made small so that the device or instrument will cover it.
4. If you are to install one device or instrument over or under another, be sure to bore the second hole directly over or under the first one, or at least between the same studs. If by mistake you bore a hole in another space, you would not be able to get the wires out easily.
5. Before drawing the wires in, fasten a small weight (piece of solder, nail, or other small heavy object, on the end of a piece of string. A mason's chalk line or other strong cord is quite strong enough for pulling in the wires.
6. Drop the weighted string down from the upper hole and fish it out at the lower hole with a small piece of wire, on the end of which you have bent a small hook.
7. Next, fasten on the necessary wires and pull them up to and out of the top hole.
Note. You can also fish from a hole on one side of a partition to a lower hole on the opposite side of the same wall, or directly through from one side to the other.
8. In fishing from a lower hole to another located above, you will use a "snake." Push this from the lower hole up into the partition until you can draw it out the same as when fishing the cord out.
9. This "snake" method is also used in fishing wires between floors and ceilings. It is also used in fishing wires through conduits, from outlet to outlet.
10. All joints in wires which are fished in walls must be securely made and taped to prevent short circuits. Be sure to observe this rule very carefully.

JOB 2: System. Install a vibrating bell on wall, operated by a push-button beneath the bell. Wires to be concealed by fishing inside the walls.

How to Do the Work

- Step 1. First draw a diagram showing a simple bell circuit, a bell with a push-button directly under. Locate the battery beneath the button.
- Step 2. Through the hole, five feet from the floor, that you bored in the wall last week, drop a line with a small weight fastened

- on it. (Section 4 of general instructions.) This is often called a "mouse line."
- Step 3. Fish this line out of the hole near the floor.
- Step 4. Measure the distance from the floor up to the top hole, allowing about one foot extra for connections.
- Step 5. Take a piece of annunciator wire twice this length and double it over in the middle.
- Step 6. Where the wire is doubled over fasten on to the string, first removing the weight.
- Step 7. Pull the string out through the top hole, leaving the wires sticking out about 3 inches.
- Step 8. Now take a piece of stiff wire and bend a small hook on it. Stick the hook into the hole where the push-button is to go, and fish out *one* of the wires, pulling a loop through.
- Step 9. Cut this loop in half and fasten each of these wires on a separate terminal of the push-button. Fasten the push-button to the wall by means of two flat-head wood screws (about 1 inch #7 will do).
- Step 10. Fasten the bell at upper hole and connect on the wires.
- Step 11. Connect two dry cells in series. Fasten the two wires which come through the lower hole on to this battery.
- Step 12. Test out the job.

6

AUTO MECHANICS: VALVE SETTING

This job was planned by George J. Brinkerhoff, Director of Part-time School, Newburgh, N. Y., and Ray Townsend, Part-time School, Peekskill, N. Y.

JOB: Valve Setting

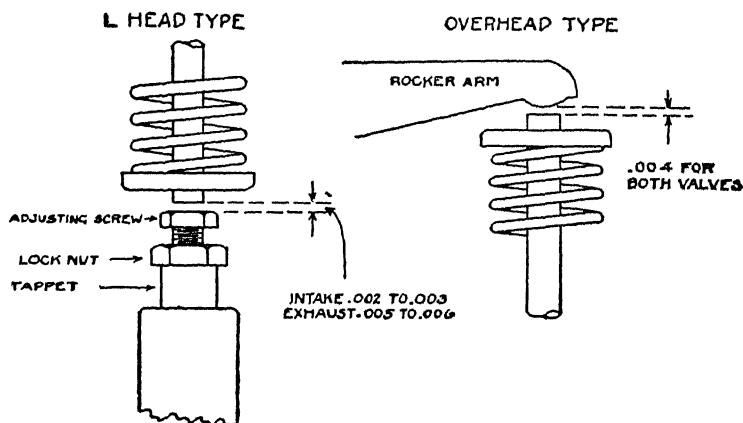
Operations

1. Turn the motor by hand so that the valve you want to adjust rises and lowers. Then turn one-half way around after the valve has closed.
2. Loosen the lock nut on the valve tappet and turn the adjusting screw until it touches the end of the valve stem; if an overhead valve until rocker arm touches the end of valve stem.
3. Back the screw off until you can insert the feeler between the end of the valve stem and lifter or between the valve stem and rocker arm.
4. The feeler should drag slightly between the valve end and lifter. DO NOT FORCE IT IN.
5. Hold the adjusting nut with a wrench and tighten lock nut.
6. Test again with feeler.

Note: Adjust all intake valves first and then the exhaust valves. This will prevent changing your feeler so often.

Read: Wright, Vol. I, pp. 119-120.

VALVE SETTING

*Tools and Materials*

1. Tappet wrenches.
2. Feeler thickness gauge.

Trade Terms

Place in your note-book the meaning and use of the following terms:

Rocker arm
Valve tappet
Lock nut
Adjusting screw
Valve spring
Valve clearance

Trade Science

Answer in your note-book the following questions:

1. What happens to the length of a valve when it becomes hot?
2. What will be the result of
 - (a) Too much valve clearance?
 - (b) Too little valve clearance?
3. Which valve is subjected to the greatest heat, the exhaust or the intake?
4. What is valve grinding compound made of?

Trade Mathematics

None.

English

Suppose you needed 2 valve springs and 6 adjusting screws.

Order them from the Automobile Accessory Company, Columbus Circle, New York.

Refer to pages 21 and 22, *Brown's Sixty Units in Business English*, Gregg Publishing Company.

Safety and Hygiene

1. If the wrench should slip and knock off a piece of the skin of your hand, what would you do?
2. What special danger is there to be feared from such a cut?
3. Would you make this cut bleed? Why?
4. What dressings would you need?

Refer to *Red Cross Manual of First Aid*, pp. 86, 93, P. Blakiston's Son & Company.

Vocational Guidance

Look up in the dictionary the meaning of specialization.

Is specialization carried out in the garage?

Make a table listing the different jobs in a garage and service station, what each job calls for, qualifications of the holder, estimated salary.

Social Science

Write out the answers to these questions in your note-book:

1. What are three kinds of specialization?
2. What is the difference in adopting a tool and making a machine?
3. Describe the characteristics of a machine.
4. Can we get along without machines? Why not?
5. What effect has the automobile on our life?

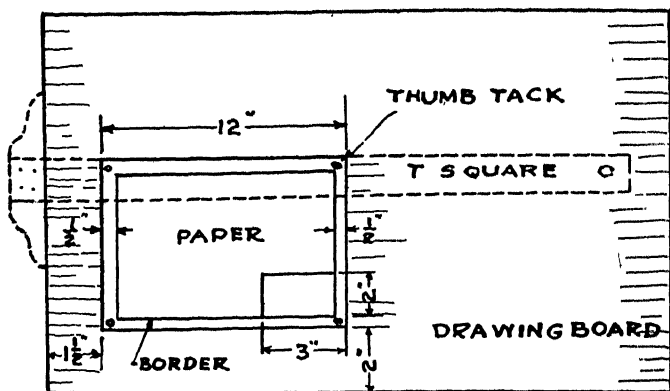
Refer to pp. 43-59, Johnson's *We and Our Work*, American Viewpoint Society.

7

TRADE DRAWING: THE USE OF MATERIAL AND MAKING A SIMPLE FLOOR PLAN

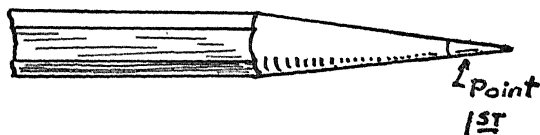
The first of the following jobs was planned by R. Sommer, Buffalo (N. Y.) Continuation School, and the second by Samuel Valenstein, East Side Continuation School, New York City.

JOB: Proper Way to Apply Paper to Board, Drawing Border, and Sharpening Pencil

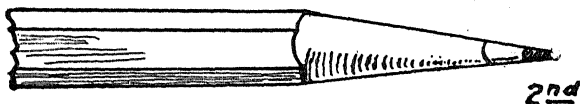


Operations

1. Get drawing board.
2. Get 9 x 12 drawing paper from cabinet.
3. Get T square.
4. Place drawing paper on board, the longer dimension, 12 inches, running left to right.
5. Put T square on drawing board with head of T square to edge of board.
6. Place paper under T square so that lower edge of paper is 2 inches from bottom edge of drawing board and about $1\frac{1}{2}$ inches from left-hand edge of board.
7. Put the T square with the head tight against the left-hand edge of the board along the upper edge of the paper so that the upper edge of the T square coincides with the upper edge of the paper and hold in this position firmly.
8. Put a thumb tack first in the upper left-hand edge, slide hand diagonally to lower right-hand edge and place thumb tack there. Next place thumb tack in upper right-hand edge and draw hand diagonally to lower left-hand edge and place thumb tack there. The purpose of placing the paper this way is to get the paper perfectly flat. This is also done with large size paper.
9. Get 4 H pencil and sharpen as shown. Draw with the narrow edge of pencil (not like a brush).
10. Get scale and find the division marked 16". This is the standard inch rule. 16 means $\frac{1}{16}$ of an inch division.
11. Mark off $\frac{1}{2}$ inch on paper, around all edges.

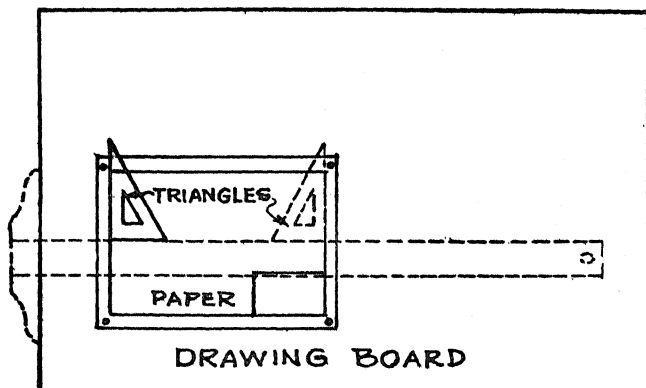


Sharpen with a knife this way.

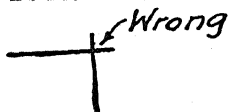


Sharpen with sandpaper this way

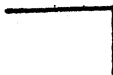
12. The horizontal edge marks or upper and lower edge marks are lined up with upper edge of T square. Draw lines through these marks within a half inch of the left and right edge.
13. Lower T square and place a triangle as shown in sketch. Draw along vertical edge of triangle, so that the upper and horizontal lines on paper are connected.



14. Turn triangle around as shown in dotted lines in sketch. Do the same as in 12, drawing vertical lines connecting upper and lower horizontal lines. You now have a one-half inch border all around paper. Do not let lines cross one another like this:



but like this



15. In lower right-hand corner draw a title border 2 inches high and 3 inches long using T square for horizontal line and triangle for vertical line.
16. When finished put name on paper and show to instructor.

Trade Science

1. Why do you think it is necessary to place the paper to the left-hand side of the board?
2. Why do you think it is necessary to put it to the lower edge of the board?
3. Why is the T square head held firmly against the board?
4. Why use the triangles for vertical lines?

Trade Terms

1. Give the meaning of horizontal lines.
2. Give the meaning of vertical lines.
3. Give the meaning of border.
4. What is meant by chisel edge?
5. What is a title border? (Use dictionary)

Vocational Guidance

1. Tell why you think you can learn to qualify in drawing.
2. How do you think you can learn drawing easily?

Equipment and Materials

1. With what instrument can you measure off 6 inches?
2. Why are the drawing boards made of soft wood?
3. How would you draw horizontal parallel and vertical parallel lines?
4. Do you think it necessary to have the wood in boards and T square kiln dried? Why?
5. Which is the softer lead in a pencil, 2 H or 4 H?

Safety and Hygiene

1. How can a draftsman keep in good health?
2. Mention five ways in which he can ruin his health.
3. What is apt to happen if thumb tacks are carelessly strewn about?

Trade Mathematics

1. How many inches in a foot?
2. How many feet in a yard?
3. How many yards in a rod?
4. How many feet in a mile?
5. What is meant by linear measure?
6. Reduce the following to inches and add together 10'-0"; 5'-4"; 7'-6"; 14"; 28".
7. Reduce 38 rods 4 yards 1 foot to a decimal of a mile, correct to three decimal places.
8. When you have finished show to your instructor.

' Means feet
" Means inches

JOB: Make Floor Plan of Classroom to $\frac{1}{4}$ " Scale

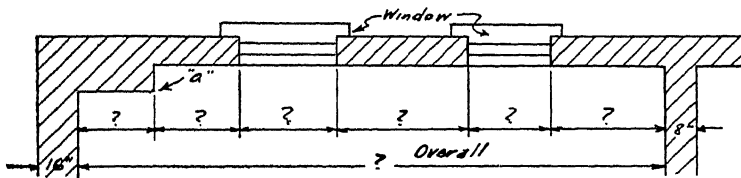
References: Read pages 96 to 103—French & Svensen.

Note: Floor plan must show

1. All the walls.
2. Doors and windows.
3. Location of lighting (electric) and heating (steam) outlets.

Operations

1. Make freehand sketch of room on separate sheet.
2. Locate on your sketch objects noted above.
3. Take as your first measurement the distance from wall to point "a."
4. From this point measure distance to window.
5. Measure width of window.
6. Continue until you have measured all breaks along the wall.
7. Take over all measurement.
8. See if different measurements on the wall add up to the over all measurements. (W. of room)
9. Proceed with the next wall and so on around the room. Check, by over all measurement, each wall.



SKETCH OF WALL OF A ROOM SHOWING HOW MEASUREMENTS ARE TAKEN

10. Have teacher O. K. sketch before you begin your scale drawing.
11. Place wall with door at the bottom of the sheet.
12. Assume outside walls to be 16" thick and the interior or partition walls 8" thick.

Trade Terms

Place in your note-book the meaning of the following terms:

1. Elevation.
2. Section.
3. Molding (Name two kinds).

Job Problem

Place in your note-book under "Areas."

Problem: Estimate the number of square yards of plaster required for wall facing Chrystie Street. Assume room is 12' high.

Reference: Dooley, *Vocational Mathematics*.

Reading Assignment

Read "Remarkable Success of Two Tennessee Builders," in *National Builder*, July, 1923, p. 66.

What can you say about the early education of Mr. Bell?

What things contributed to the business success of the two partners?

8

TYPEWRITING: FIRST LESSON

In private business schools the idea of the instruction sheet is not a new one. The adaptation to continuation school conditions is easily made. The typewriting course is arranged by unit instruction sheets, each one accompanied by an exercise. The following, the first in the series, was prepared by Gertrude Kufahl, East Side Continuation School, New York City.

To the Beginner:

Somebody has said that the world is divided into two classes—winners and losers. In typewriting you usually either win or lose at the start. You are going to fall into certain habits almost at once and they will be good or bad, right or wrong. If you make them good habits, right habits, you will not have to spend much time and effort in correcting them later. Try to do everything exactly right from the start. Many an experienced typist will envy you your opportunity of starting with no habits formed. If he could start all over again, how careful he would be of the many little details.

1. *Position of Body:* Adjust your chair so that you are sitting in a comfortable position directly in front of the machine, with your back resting against the back of the chair and your feet squarely on the floor.
2. *Location of Fingers on the Keys:* The thumb is not used on any key of the typewriter; therefore, the finger that you know as the index finger or forefinger or pointer finger is called the *first* finger in typewriting. Place your fingers on the keys, as follows:

The first finger of the left hand on "F"
The second finger of the left hand on "D"
The third finger of the left hand on "S"
The fourth finger of the left hand on "A"
The first finger of the right hand on "J"
The second finger of the right hand on "K"
The third finger of the right hand on "L"
The fourth finger of the right hand on ";

3. *Position of Fingers and Wrist:* Now drop your arms to your sides and notice how your fingers curve—they curve *naturally*. Bring those same naturally curved fingers to the keys. Be sure that all your fingers are curved and that they are resting *lightly* on the keys. The keys must not be pushed down in the slightest degree.

OFFICE PRACTICE: FOLDING LETTERS AND BILLS

The following job was planned by Herbert H. Arnston, East Side Continuation School, New York City.

1. Folding Letters and Papers for Legal-size Envelopes

2. Folding Bills for Window Envelopes

Materials: Typewritten letters; addressed legal-size envelopes; enclosures; window envelopes; bills.

Information: For many purposes, letters are sent in large envelopes, or legal-size envelopes. When enclosing insurance policies, legal documents, etc., large envelopes are necessary.

Window envelopes are used extensively for mailing bills, statements, invoices, and sometimes letters.

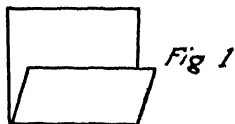
Directions

1. Compare the name on the letter with the name on the envelope.
2. See if any enclosure is to be made.
3. Attach the enclosure, if there is any, to the top of the letter, with a paper clip.
4. Fold the bottom of the letter up a little less than one-third of the length, and crease it across with the backs of your finger nails (see Fig. 1).
5. Fold the top of the letter down a little less than one-third—leaving a margin of about half an inch—and crease it across with the backs of your finger nails (see Fig. 2).
6. Insert the letter in the envelope so that the closed (folded) side of the letter goes in first.

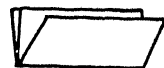
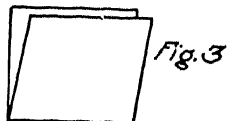
Explanations

Be careful to put the letter into the right envelope.

If an enclosure is too large to attach, put it in the envelope.

*Legal-Size Papers*

1. Fold the bottom of the paper up even with the top of the paper, making two equal parts, and crease it across (see Fig. 3).
2. Fold the bottom again up even with the top, making four equal parts, and crease it across (see Fig. 4).
3. Insert the paper in the envelope so that the closed (folded) side goes in first.



Bills for Window Envelopes

1. Fold the right-hand side of the bill *backwards*, leaving the bill just wide enough to fit into the envelope.
2. Fold the top of the bill *backwards*, far enough so that when it is in the envelope, the name and address will show through the *window*.
3. Fold the bottom of the bill over far enough so that the bill will fit snugly into the envelope, with no room to shift out of position.

Window envelopes save time, because they do not need to be addressed at all.

Fig. 5

Be sure the full name and address show through the window.

Assignment

1. Fold letters and insert in legal-size envelopes, according to above Directions, and submit them to the teacher.
2. Fold legal-size papers and insert in legal-size envelopes, according to above Directions, and submit them to the teacher.
3. Fold bills and insert in window envelopes, according to above Directions, and submit them to the teacher.

10

BOOKKEEPING: VOUCHER DEPARTMENT

The following job was planned by Russell A. Orr, Schenectady (N. Y.) Continuation School.

VOUCHER DEPARTMENT. The Voucher Department receives all invoices after they have passed through the Purchasing Department, which checks the invoices for correctness of price and quite often checks them for correctness of extensions, and after they have passed through the Stock Department, which checks the invoices for correctness of the quantity of goods received. Sometimes the Voucher Department rechecks the extensions, and also foots up the total of the invoices, as this is the item in which the Voucher Department is most interested for it has charge of paying the amounts called for on these invoices.

This Department keeps a record of all payments of money for purchases. The purchase of commodities may be recorded according to one of two general plans—the use of the purchase book (which we will not take up now) and the use of the voucher system. The voucher system is capable of being applied to any line of business from the smallest to the largest. The form of the voucher will likely vary with the kind of business but the information recorded on the voucher will be practically the same.

The face of the voucher is simply an abstract of the invoice, and usually provides space for approval for payment by the proper officials of the company, such as the Treasurer or whoever is authorized to O. K. invoices for payment, after being O. K.'d by the Purchasing Agent, Price and Extension Checker, and Stock or Receiving Clerk.

The back of the voucher generally contains space for the number, the date, the name of the creditor, the amount, the names of the accounts to which the vouchers is to be charged, that is, the names of the accounts carried, with the items of stock received in the shipments and the amount put opposite each item as shown on the invoice. The total at the bottom of the column on the back of the voucher must be the same as the total amount of the invoice.

Make up the face of the voucher and fill in the back of it for each shipment (that is, goods received from one firm) shown on the opposite page. (Number the vouchers 1, 2, 3, 4, etc.)

Add the items on the back of the voucher to see if they agree with the total of the invoice or amount shown on the face of the voucher. If they do not you have skipped some item or items when making up the back of the voucher.

Have you done your work *accurately*?

(Date of these invoices is 1 week ago.)

<i>Name—Address</i>	<i>Items and Quantity</i>	<i>Price</i>	<i>Amount</i>	<i>Total</i>
Walter Baker & Company, New York	500 lbs. 6000 lbs. 5000 lbs.	Baker's Cocoa Baker's Chocolate Pearl Tapioca	48 lb. 27 lb. .03 lb.	240.00 1620.00 150.00
Smith, Perkins & Co., New York	50 bags 50 bags 7500 lbs. 6000 lbs. 7500 lbs.	Plain Rio Coffee 6250# Genuine Mocha Coffee 7500# Japan Tea Oolong Tea Java Coffee .....	.24 lb. 20 lb. 26 lb. .35 lb. 23 lb.	1500.00 1500.00 1950.00 2100.00 1725.00
J. E. Seel & Company, Bos- ton, Mass.	25 pails 500 lbs. 50 bbl.	Mixed Creams Standard Mixed Creams Lump Salt	1.40 pail .10 lb. 1.50 bbl.	35.00 50.00 75.00
Gray, Dunkle & Co., Chi- cago, Ill.	25 bbl. 10 bbl. 14,000 lb.	Brown Sugar 7500# White C Sugar 3300# Young Hyson Tea .....	.02 ½ lb. .03 lb. 21 lb.	187.50 99.00 2940.00
Bates, Aldrich & Co., Boston, Mass.	100 cans 50 bbls. 100 pails 20 bbl. 20 bbl.	Huyler's Cocoa 100# Pastry Flour Mixed Cream Candy Standard A Sugar 6500# Granulated Sugar 6500#	43 lb. 3.35 bbl. 1.40 pail .04 lb. .05 lb.	43.00 167.50 140.00 260.00 325.00
John Gray Grocery, Buffalo, N. Y.	100 bags 6000 lbs. 3750 lbs.	Pain Rio Coffee 12,500# Oolong Tea Japan Tea	24 lb. 35 lb. 26 lb.	3000.00 2100.00 975.00
D. W. Simpson & Co., Chi- cago, Ill.	50 bx. 50 cs. 20 bbl. 125 bx. 50 bx. 5 cs. 20 bbl.	Sunlight Soap Pastry Flour 1000 sks. Oyster Crackers 1200# Wool Soap Water Lily Soap Pancake Flour 100 sks. Soda Crackers 1200#	3.00 bx. .15 sk. .08 lb. 3.00 bx. 1.70 bx. .12 sk. .06 lb.	150.00 150.00 96.00 375.00 85.00 12.00 72.00
				940.00

VOUCHER No.....

Date.....

To.....

\$.....

✓	Account Debited	Amount
	Molasses	
	Sugar	
	Starch	
	Chocolate, Cocoa.....	
	Crackers	
	Candy	
	Coffee	
	Tea	
	Soap	
	Flour	
	Miscellaneous	
	Total	

Back of Voucher

11

SALESMANSHIP: RECEIVING STOCK

The following job was planned by a committee of salesmanship teachers from all the continuation schools in New York City.

Storekeeping—Part II (Receiving Stock)

Note: Merchandise to stock-room and invoice to controlling department.

Reference Material: Read the Report of the Receiving Department of R. H. Macy & Company as studied and described by Isabella B. Miles—Instructor of Salesmanship of the West Side Continuation School.

Answer the following questions:

1. Mention three ways of shipping merchandise from a factory in Chicago to R. H. Macy & Company.
2. Mention three ways of shipping merchandise from a factory in New York City to R. H. Macy & Company.
3. Mention four methods of notifying R. H. Macy & Company of a future shipment of merchandise.
4. What department in a store receives the merchandise?
5. Why is the Receiving Department usually located on the ground floor?
6. When this merchandise is delivered give three reasons why a receipt for the receiving of the merchandise must be signed.

Note: A memorandum called an *apron* is made out in triplicate by the receiving clerk. The original is kept on file by the Receiving Department, as their records of the receipt of the merchandise. The duplicate copy of the memorandum goes with the merchandise as the Stock-room Department's memorandum of the receipt of the merchandise. The triplicate goes to the controlling department as the Bookkeeping Department's receipt of the merchandise to be paid for that has been received.

7. What memorandum does the Receiving Department make out of the merchandise received by them?
8. Give three uses that are made of these memorandums.
9. Where does the merchandise go when it leaves the Receiving Department?
10. Where is this merchandise unpacked and sorted?

Note: The General Stock-room is where the merchandise is unpacked, sorted and marked as to size, color, style, price and stock number. A ticket called the price-tag is placed upon the merchandise in this department.

11. How can a sales-clerk tell the price of merchandise for sale?
12. In what department is this price-tag made out and placed upon the merchandise?

13. Write five things that the price-tag tells the sales-clerk.

Note: The *sale price* placed upon the tag is the result of the *mark-up* of the merchandise. (*Mark-up* means *cost price* plus *overhead charges* plus *profit*.)

14. What is meant by cost price of an article?
 15. What other expenses does merchandise have after buying besides the cost?
 16. Mention five items of expense included in the selling of merchandise.

Note: These expenses such as light, heat, salaries, etc., make up what we merchants call "overhead."

17. Why is a merchant in business?

Note: The money he makes in buying and selling is called *profit*.

18. When is merchandise paid for by the merchant?

Note: Merchandise paid for within ten to fifteen days is said to be paid for by *cash*.

19. Why is a merchant who pays cash entitled to a discount?
 20. Why does the merchant who pays cash make more profit than the merchant who does not?
 21. How is the merchandise received, checked up, marked up, put in stock and paid for by the firm for which you are employed?

Conclusion: Write a paragraph of 50 words on what you have learned in to-day's lesson. Sign your name.

Arithmetic

Marking the Price of Goods

When the cost price is marked on goods a certain per cent is added to the prime cost to cover the buying expenses. The amount of the per cent to be added is determined by the average expenses of several previous years. For example, the expenses of a certain department were as follows:

<i>Year</i>	<i>Prime Cost</i>	<i>Buying Expenses</i>
1920.....	\$26,250.....	\$1065.00
1921.....	24,175.....	1430.50
1922.....	42,450.....	2148.25
	<hr/>	<hr/>
	\$92,875.....	\$4643.75

\$4643.75 divided by \$92,875 equals 5% equals average per cent of increase.

Illustrative Example. Merchandise which cost \$15 must be marked at what price to cover buying expenses?

Solution:	\$15 = Prime cost.
	x.05 = Per cent of buying expenses.
	<hr/>
	\$.75 = Buying expenses.
+	\$15.00 = Prime cost.
	<hr/>
	\$15.75 = Total marked cost.

Work out the following problems in mark-up of merchandise:

In marking goods, if 5% of the cost of each article be added as buying expenses, what would be the marked cost of each of the following articles?

- | | |
|------------------------|------------------------|
| 1. Prime cost, \$28.50 | 4. Prime cost, \$24.52 |
| 2. Prime cost, \$14.75 | 5. Prime cost, \$ 7.25 |
| 3. Prime cost, \$13.69 | 6. Prime cost, \$42.39 |

English

Consult a dictionary.

Write the definition of each of the following merchandising terms:

receipt memorandum duplicate mark-up apron

Write a sentence using each merchandising term given above.

Letter Ordering Merchandise

Consult the book entitled *The Business Letter*, by Ion E. Dwyer, p. 32.

Study the letter given on this page.

Write a similar letter ordering the following:

1000 bu. wheat (spring wheat No. 2).

500 bu. corn (yellow, grade No. 2).

Sign your own name.

Safety and Hygiene

Relaxation

A certain retail shoe store urges each man to wash his face at 3 o'clock with either hot or cold water; to brush his hair, clean his shoes; step near an open window for three or four minutes, and then come back on the floor and defy any customer to upset him or remark about the store, service, or merchandise.

This may not be practical in every store, but it does suggest to you the advantage of pausing, if possible, during the afternoon's work to recover your balance from fatigue or nervous strain.

Answer the following questions:

1. What is the policy of your business as to leaving the department during the morning or afternoon period of business.
2. What do you do to relax during business hours?
3. Does the company provide a rest-room?

Civics

Courtesy

Consult the book entitled *Retail Selling* by Helen Rich Norton, p. 44.

Read paragraphs:

- a*—Conduct of salespeople.
- b*—Conversation.
- c*—Loud calling.
- d*—Personal comment.

Answer the following questions:

1. Explain why the possession of courtesy is advantageous to a sales-clerk.
2. Is personal conversation among sales-clerks permissible?
3. Give your opinion as to the propriety of addressing fellow-employees by their given names in the presence of the customer.

12

NOVELTY WORK: WASHABLE BAG

The following job was planned by Mary L. Deming, East Side Continuation School, New York City:

Unit 1 in Novelty Work consists of two pieces of work to be completed in 12 sessions.

Part 1 consists of a bag made of washable material and very simply decorated.

What You May Learn in the Making of This Bag

You are taught how to use a job sheet. You learn the most common sewing stitches and their uses, one way to make a flat fell seam, and how to cut and use a gauge in the making of a hem. In putting the bottom in the bag you learn how to regulate gathers as in putting on belts or cuffs.

The decoration of the bag gives you some suggestions in the selection and placing of designs and the combination.

A little pasting is used on the inside bottom of the bag. The corners of this are pasted as cloth corners in Novelty Work are done.

How the Student's Work Is Judged

You will be judged as to your ability in plain sewing, your knowledge of simple measurements, neatness, accuracy, speed, use of color, and ability to follow oral and written directions.

Part 2. Either a handkerchief or a crochet case may be made.

Part 1 and Part 2 must be completed in 12 sessions if you are to get credit for the Unit.

Materials

- 1 piece material 9" x 21½".
- 2 pieces material 4" x 4".
- 2 pieces ribbon 27" long.
- 1 piece card board 4" x 4".

Embroidery cotton or embroidery silk for the design.

Operations

- a. Fold the two 9" ends of material right sides together, letting one edge extend ¼" beyond the other. Baste.

Flat Fell Seam

- a. Hold material with narrower basted edge toward you. Sew seam ¼" from edge using combination stitch, two running stitches and a back stitch. Use a small knot in your thread and fasten the end of the seam carefully.
- b. Turn the seam to one side, with wider side of seam on top, crease flat especially on the right side of bag. Turn under raw edge to make a finished seam ¼" wide. Baste folded edge and hem with small stitches.

Preparation of a Gauge

- a. Cut a gauge on which the following measurements are cut, 1¾", 1½", 1".
- b. Using a stiff piece of paper or a card, lay end of ruler even with end of card and a little back from edge. Without moving ruler, with pencil mark these three measurements.
- c. With scissors make about a ¾" cut through these dots. *Be-*

Supplementary Information

Bags are made of various kinds of material and as many kinds of designs.

Suitable washable materials could include the following: unbleached muslin, Indian head, chambrey, gingham, linen, cretonne, sateen, prints.

Less durable materials would include silks, satins, and brocade.

A flat fell seam is often used on underwear seams. It is also used on the shoulder seams of waists, and for putting in sleeves in tailored waists.

When a flat fell seam is used on a waist it is made on the right side of the garment.

When putting a hem in a skirt a gauge will be helpful.

It takes less time to measure with a gauge than to use a tape-measure. The result is apt to be more accurate too.

Neatness and accuracy are two of the most desirable business habits to acquire.

A knowledge of the use of a tape-measure or ruler will be useful to any woman.

A loss of ⅛" on each inch in a yard would mean a loss of 12" on a dress length of 2½ yards.

Operations

1. Locate point A by squaring both ways in upper right corner.
2. Locate point B from point A by measuring 9 inches down.
3. Locate point C from point B by measuring 14 inches down.
4. Locate point D from point C by measuring 6 inches down.
5. Locate point E from point B on seat line by measuring $\frac{1}{2}$ degree. Seat measure *front*.
6. Locate point F from point E by measuring $\frac{1}{8}$ degree. Seat measure *front*.
7. Locate point G from point F by measuring $\frac{3}{4}$ inch *front*.
8. Locate point EE from point E by measuring $\frac{3}{4}$ inch *front*.
9. Locate point H by dividing line B-G in the center.
10. Square up from point H locating point I at top on waist-line.
11. Square down from point H locating point J at knee-line and point K on strap-line.
12. Locate point L by measuring $\frac{1}{4}$ degree of waist measure *front* from point I (on 16).
13. Locate point M by measuring $\frac{1}{4}$ degree of waist measure *back* from point I (on 16).
14. Locate point N by measuring $\frac{1}{4}$ degree of strap measure (on 13) plus $\frac{1}{2}$ inch *front*.
15. Locate point O by measuring $\frac{1}{4}$ degree of strap measure (on 13) plus $\frac{1}{2}$ inch *back*.
16. Connect points L with EE.
Connect points G with N locating JJ on knee-line.
Connect points M with B.
Connect points B with O.
17. Locate point X by measuring $\frac{1}{6}$ degree of seat measure *up* from point B.
18. (a) Square *front* from point X locating point XX. (b) connect point XX with point G.
19. Locate point P from point B by measuring $1\frac{1}{2}$ inches *back*.
20. Locate point Q in the center of B-O line.
21. Locate point R $1\frac{1}{2}$ inches *back* from point Q.
22. Locate point S by measuring $\frac{3}{4}$ inch *front* from point JJ.
23. Locate point T in center of line G-XX.
24. Locate point U by measuring $\frac{1}{2}$ inch *back* from point T.
25. Locate point W in the center of A-B.
26. Shape with wooden curve stick. Points G to S and S to N.
27. Shape with celluloid curve:
Points XX to U and U to G.
Shape with curves.
Point M with W.
Point W with P.
Point P with R.
Point R with O.

Drill: Make fronts of various sizes using the following measures:

<i>Rise</i>	<i>Inseam</i>	<i>Waist</i>	<i>Seat</i>	<i>Strap</i>
$8\frac{1}{2}"$	28"	28"	34"	$12\frac{3}{4}"$
$9\frac{1}{2}"$	32"	34"	40"	$13\frac{1}{4}"$

Rules to Be Followed in All Written Work

1. Write your name, course and date in the wide space above the top lines. Draw the lines with a ruler. Write the number of this job next to Job No., in the following manner:

Job No. 4

Your name
Garment design
Date

2. Write the word English on the first line in the center.
3. Number the spelling words and place them in exactly the same position as they are on this card.

English

The following words most of which you used in your shop lesson have a letter missing.

20 points—1st—Fill in the missing letter.

2nd—Prove they are correct by comparing with dictionary.

20 points—3rd—Select 10 words from this spelling lesson and place them in sentences (each sentence consisting of two lines or more).

10 points—For *neatness and cleanliness*.

- | | |
|----------------|----------------------|
| 1. back-p-nts | 7. su-pender-but-ons |
| 2. wa-stband | 8. thre-d |
| 3. cuf-s | 9. inseam me-sure |
| 4. wor-ted | 10. mate-ial |
| 5. wo-lens | 11. ele-tric |
| 6. belt-str-ps | 12. cord-roy |

Arithmetic

When checking up goods that your employer has bought no doubt you have noticed on the bill something like the following:

(2 per cent 10 days) or (3 per cent 30 days)

The mark % is used in place of the word *per cent*. Our arithmetic lesson to-day will be to make certain that we understand *what per cent means*; and *how per cent is figured*.

When six per cent (6%) discount is written on a bill it means that six cents (.06 or 6/100) may be taken off each dollar, providing the bill is paid within a certain time.

For example:

If a bill amounts to \$200 and six per cent (6%) is allowed, it means to find how much is allowed you must multiply \$200 by 6/100, or $200 \times .06$. In this way you will find out that the amount allowed is \$12.

For the purpose of drill, and in order to test yourself, do the following examples:

Find the discount allowed and the net payment of the following bills:

<i>Amount of Bill</i>	<i>Per cent of Discount Allowed</i>	
1. \$937.50.....	6%	(per cent)
2. 980.40.....	5%	"
3. 1357.37.....	7%	"
4. 2146.18.....	4½%	"
5. 369.40.....	3¾%	"
6. 159.60.....	2½%	"
7. 9758.89.....	4¾%	"

Five lines from the bottom of the page write the following statement:

I have learned to-day the following lessons:

1. The drafting of pattern.
2. The correct spelling and use of 12 words.
3. How to figure the discount of a bill.

(Signed) Your name,

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HOME-MAKING: SEWING

The following project was planned by Jessie R. Dutton, East Side Continuation School, New York City.

PROJECT: Step-in Chemise, Drafting & Cutting

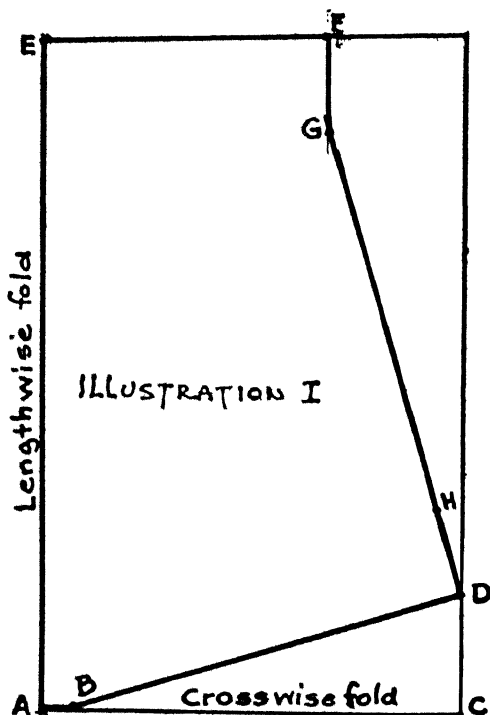
Job 1

Instructions

1. Measure from under the arm to bend of knee. Take twice this length for chemise.
2. Fold the goods lengthwise and then crosswise putting the two cut ends together. Pin along the lengthwise fold. (See illustration No. 1).
3. Place the crosswise fold toward you.
Place the lengthwise fold on the left.
4. Measure 1½" from A to B on the crosswise fold and place dot.
5. Measure on the selvage edges from the crosswise fold 5" from C to D, and place a dot.
6. Draw the line B to D.
7. Measure the hips loosely at the largest place.

Information

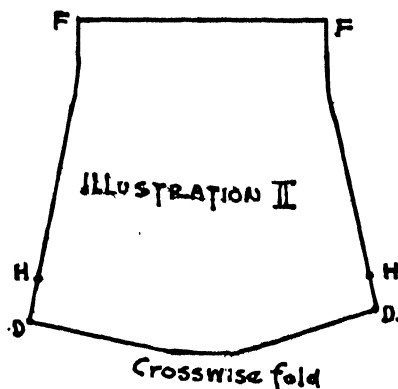
1. By measuring in this way one can make a chemise to fit any figure.
2. A lengthwise fold is made by putting selvage edges together.



Step-in Chemise (cont.)

8. Find $\frac{1}{4}$ the hip measure plus 2" and measure this distance on the cut edges at top from the lengthwise fold E to F. Place a dot at F.
9. Measure 4" from F to G and draw the line at right angles to the top edges.
10. Draw the line G to D.
11. Slightly curve the line outward at G.
12. Pin the goods carefully one inch inside the line and cut exactly on the line.
8. By allowing 2" on each fold there will be sufficient fullness to put garment on over the hips.
12. If a garment is to be perfect it must be cut exactly on the lines.

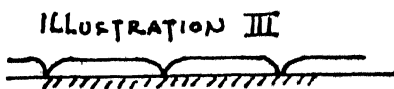
13. Measure 4" from D on the line D to G and place a dot on each fold of the goods at H.
14. Remove the pins and open the chemise. See illustration No. II.



15. Baste and French seam the sides from F to H on the machine.
15. French seams are always basted on the right side first. Stitch on the machine, remove bastings, carefully trim the edges. Baste and stitch on the wrong side. Carefully made French seams are always small.

Jobs 2 & 3

1. Baste $\frac{1}{8}$ " hem all around bottom on each side of chemise.
1. A scalloped edge is much prettier when made over a narrow hem.
2. Thread needle with white thread for scalloped edges on bottom. Take 5 hemming stitches and then place the needle from the back to the front under the edge of the hem and draw the thread tight. Do this three times in the same place. (See Illustration III.)
2. Small hemming stitches are essential for nice work.
3. Continue around the hem.



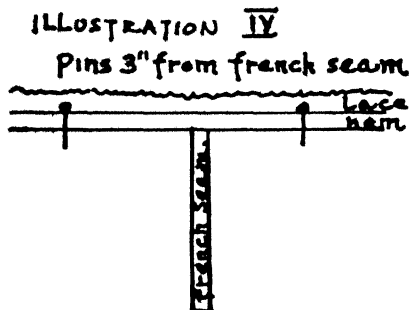
Step-in Chemise (cont.)

Job 4

1. Baste $\frac{1}{8}$ " hem at the top of chemise and stitch on the machine.
2. Start at the underarm seam and overhand lace to edge of hem, leaving $\frac{1}{2}$ " of lace beyond the seam for finishing afterwards.
3. Join lace in a small flat seam.
1. All careful stitching is done exactly on the edge of the hem.
2. Overhauling stitches are always very small. Put the right side of lace to the right side of the garment.
3. Make the flat seam on the wrong side of garment.

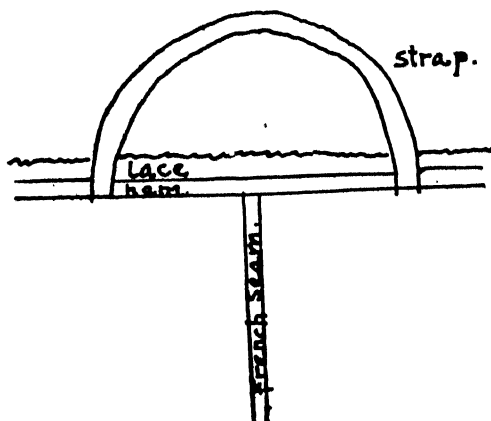
Job 5

1. Cut 2 straps each 17" long.
 2. Turn the end of each strap over once $\frac{1}{8}$ " and baste.
 3. Take 4 pins and measure 3" each way from the under arm seam on the wrong side of chemise and place a pin across the hem at each place. See Illustration IV.
- Pins 3" from French seam.



4. Place one end of strap at each pin and baste, leaving 6" between the straps.
5. Hem the strap to hem of chemise with no stitches showing on the right side. See Illustration V.

ILLUSTRATION V



6. Run the ribbon in from center front.

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HOME-MAKING: MILLINERY

The following project was planned by Kathleen Fitz Patrick, East Side Continuation School, New York City.

The average pupil can do Jobs 4 and 5 in Millinery in one period. Pupils can do this problem with very little help, because of the following:

1. Machine work has been taught in Job 1.
2. Measurements and division of tape-measure has been taught in the related subject period.
3. Radius and diameter has also been explained.
4. Model of tam is on an exhibition board in the classroom, and the width and amount of material needed is mounted on the tam. This can be inspected by pupils before starting Job 4 or while working on this problem.

5. Stitches or seams used have either been explained on previous job cards or are illustrated on separate cards which are given to pupils who ask how to do any part of sewing while making tam.

PROJECT: Tam O'Shanter



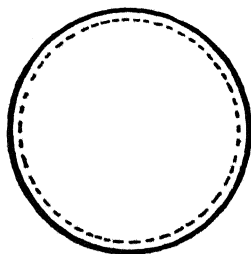
Job 4

Instructions

1. Place two thicknesses of material on table (with right sides together) and draw a circle with a radius of 7".
2. Pin materials together $\frac{1}{4}$ " from circle and cut evenly on chalk line.
3. Baste $\frac{1}{4}$ " from edge of material and stitch on machine.

Information

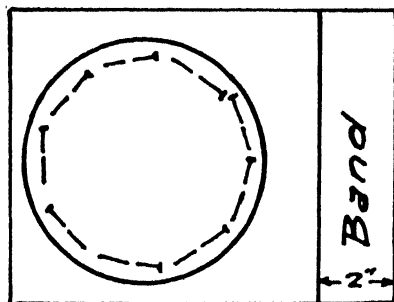
1. Almost any kind of material can be used. Material must be pressed to insure no wrinkles or creases. Use tailor's chalk to mark.
2. If materials are not held firmly together, the circles will not be even when cut.
3. Machine stitches.



4. Take a tape measure and measure 3" from edge of material around tam to form a circle 8" in diameter.
 5. Cut on chalk line through only one thickness of material.
4. This is to form the head size. The average head is 24" around.
 5. Be careful not to cut both thicknesses, or tam will be spoiled.

Tam O'Shanter (cont.)

Pin before cutting out.

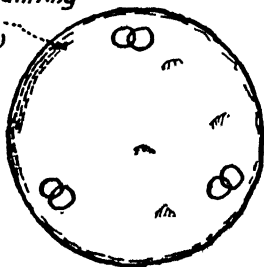


Job 5

1. Cut a strip of material 26" long and 2" wide for band.
2. Backstitch the two ends together so that band fits head. Baste band around head size of tam.
3. Stitch on machine. Turn band over $\frac{1}{4}$ " and baste down on machine stitches, then hem.
4. Press tam on wrong side with iron.
1. If material is not long enough two pieces may be sewed together.
2. If tam seems larger than band, ease material in, but avoid gathers or pleats.
3. Hemming stitches must not show on right side of tam. Embroidery stitches may be used to decorate.

Suggestions for Embroidery:

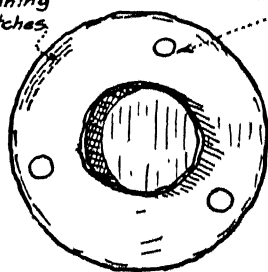
(3 rows) Running
stitches
(alternate)



Top of Tam

Running
Stitches

Chain Stitches



Under Brim of Tam

Arithmetic

Instructions

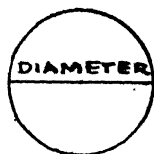
1. Get a ruler, yardstick or tape measure.
2. Find 9" on your tape measure; then find $4\frac{1}{2}$ ".
3. How many inches are there in $\frac{1}{2}$ yd., $\frac{1}{4}$ yd., $\frac{3}{4}$ yd.?
4. How many inches in $\frac{1}{8}$ yd., $\frac{3}{8}$ yd., $\frac{5}{8}$ yd., $\frac{7}{8}$ yd.?
5. Draw a circle in the folding manner. Take a piece of string and tie it to end of pencil and hold string on paper two inches from pencil and draw circle.
6. Make a dotted line through the widest part of circle. Write the word diameter on the dotted line.

7. When you draw the circle with the string, how does the length of the diameter compare with the length of the string?
8. If the diameter of your tam is 14", what length is the radius? Which of the three lengths do you use in drawing a circle?
9. If the diameter of your tam is 16 inches, what is the length of the string you will use to draw a circle for it?
10. If the radius is $6\frac{1}{2}$ " what will be the diameter of your circle?

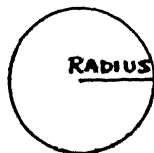
Information

1. In order to know how much material to order for your tam you must be able to figure out the amount needed from your pattern.
2. The numbers indicate inches. There are 12" in a foot and 36" in a yard.
3. Material is sold in these quantities and it is necessary to know them in order to buy the desired length.
4. Memorize these measurements or learn how to figure them out rapidly.
5. You can hold a string in place by using a pin.

6. This is called the diameter.



7. To draw a circle you should use a piece of string on a compass $\frac{1}{2}$ the length of the diameter.
8. This is called the radius.



9. Test it, after you have thought it out and see if your diameter is twice your answer.

HOME-MAKING: CARE OF APARTMENT

The following job was planned by Gertrude Hertel, East Side Continuation School. The related English and arithmetic are taught as class lessons.

*JOB: Making a Bed**Operations*

1. Take off all bedding and lay it on a chair.
2. Turn mattress end for end and upside down.
3. Brush mattress with a whisk broom. Wipe all dust off bed.
4. Take lower sheet to one side of bed.
5. Place middle crease down the center of the bed, leaving 12" at the top.
6. Tuck in sheet like an envelope at the top; then at the bottom.
7. Tuck sides in tightly; tuck with one hand and push the mattress with the other hand.
8. Lay on upper sheet with edge at top of mattress; tuck it in at the bottom or foot; fold the sides like an envelope and tuck in.
9. Lay each blanket on separately 6" from the top of mattress; tuck in.
10. Lay on spread with upper edge even with top of mattress; tuck in at foot; turn corners like an envelope.
11. Put case on the pillow.
12. Lay it on bed; smooth pillow out as flat as possible.

English

The purpose of this lesson is to learn how to find the sizes, kinds and quantities of household linen which are necessary in furnishing a home.

During certain months of the year, all the stores advertise a "white sale." What is meant by this?

Write your answer beneath the heading.

Make a list of the things which are found in every white sale "ad."

When you have made your list, write the answers to the following questions:

1. Which of the articles named in your list are used in making a bed?
2. If you were going to make your own sheets how many yards would you allow for a single bed? A double bed?
3. What width sheeting would you buy for a single bed? A double bed?
4. How many yards of muslin would make a pillow-case?
5. What is the advantage of making pillow-cases from tubing?
6. What is the difference between bleached and unbleached muslin in appearance? In price?

7. In buying blankets, what kind would you prefer? Why?
8. Of what are comfortables made? How could you make one at home?
9. Why do people use bed-spreads? Describe the kind you like.
10. Do you use oil-cloth to cover the table at meal-time? Why is this a good idea?
11. What other covering might be used?
12. Which material would you prefer, cotton or linen? Why?

Arithmetic

We should want to find out how to estimate the cost of household linens.

In the following examples find out how much these articles bought at a "white sale" would cost you.

1. If $\frac{3}{4}$ of a yard is allowed for one dish-towel, find the cost of a dozen towels made from glass toweling at \$.19 a yard.

$\frac{3}{4}$ for 1

\$.19 cost of 1 yd.

9

$12 \times \frac{3}{4} = 9$ yds. for 12 towels

cost of 9 yds.

2. If the same grade of towels may be bought ready made for \$2.75 a dozen, how much do you save by making them yourself?
3. What would 6 pairs of sheets, made from bleached sheeting at \$.37 a yard, cost you?
4. If unbleached sheeting, which is more durable, may be purchased for \$.32 a yard, what do you save in buying it to make the 6 pairs of sheets? In what other way is unbleached muslin a saving?
5. Find the cost of 4 pairs of sheets for a single bed if you make the sheets from Anchor sheeting, 54" wide, at \$.30 a yard.
6. Discuss the advisability of making towels and bed-linen at home.

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GENERAL LESSONS: CIVICS

The following lesson is one of a series suggested in *Instructional Elements for an Ungraded Course in Adjustment to Life's Activities*, by J. T. Ryan, State Supervisor for Industrial Education for Kentucky. It illustrates an interesting approach to problems in civics. By the use of this method individual work may be done by the pupil. Eighteen problems of this kind are planned in Mr. Ryan's book.

A LESSON PLAN

Below is illustrated one method of conducting instruction through the use of "Adjustment to Life's Activities."

Form A

IS COMPLETE INDIVIDUAL FREEDOM IMPOSSIBLE AND UNDESIRABLE?

What would be the advantages or disadvantages of living where we could have complete individual freedom?

The Advantages of Complete Freedom are:	The Disadvantages of Complete Freedom are:
<i>We wouldn't have to work.</i>	<i>If no one worked we would soon be without food and other necessities of life.</i>
<i>We wouldn't have to go to school.</i>	<i>If we did not have to go to school, we would soon become a stupid nation and finally some other nation would force us to learn and become useful.</i>
<i>We could sleep late.</i>	<i>If people could sleep late we would soon become shiftless and without routine, and thus unable to produce the things we need to make us comfortable.</i>

(Separate completed ideas by ruling horizontal lines.)

What is meant by liberty?

Liberty is the privilege of working out our own well-being, but in doing this we must not forget the welfare of our country or of its citizens.

TEACHER—Page 1 form A gives us a chance to analyze freedom. Will all please open their books to this page? At the top we read, "Is complete individual freedom impossible and undesirable?" Below that we read, "What would be the advantages and disadvantages of complete individual freedom?" This means that we are to try to find out what would happen if every one did as he or she wished regardless of others.

Who can tell me something he would or would not do if he had his own way?

STUDENT—I would n't have to work and could take anything I wanted.

TEACHER—All right, William, but let's take one thing at a time. Suppose we consider only your first statement as you would not take things that belong to others. Will every one write, "We would n't have to work," in the left-hand column as an advantage of complete freedom. Write carefully and not too large. Try to make it look like this in my book._____

We now have as an advantage of complete freedom, "We would n't have to work." Some one tell me what would happen in our country if we did not work.

STUDENT—There soon would n't be any railroad cars or anything to eat.

TEACHER—Yes, I think that tells us what would happen, and it also shows us that we do not work because others force us to, but because work is a necessity to life, and because it is a disgrace not to work. If there is no objection, suppose we write as a disadvantage of complete freedom, "If no one worked we would soon be without food and other necessities of life."_____

If all are through writing I should like a line ruled under the two statements we have written as I have it in my book._____

Now, who can tell me something else we must do, but often think we do not want to do?

STUDENT—If I could do just as I wanted, I would stay away from school sometimes.

TEACHER—Yes, I imagine we would all like to put things off at times. If our laws did not make you go to school, Charles, they could n't make any one of your age go, could they? Laws are supposed to treat all alike.

STUDENT—I think it would be nice if we had to go to school only when we wanted to.

TEACHER—But how many of us would be here regularly if no one made us come? Be honest, for we are trying to only to get the truth in this class? (Two hands up.) (Teacher, turning to one of the stu-

dents with raised hand.) If there had been a fine circus parade on the street as you were coming to school, and going to school were no one's business but your own, would you have stayed to see the parade?

STUDENT—Well, if no one cared what I did, I would have stayed to see the parade.

TEACHER—Of course you would and so would I. Let's write in as a second advantage of complete freedom, "We wouldn't have to go to school." Then we will find out what would happen if we had this kind of freedom.

Who can tell me what would happen if no one had to go to school?

STUDENT—If no one went to school there wouldn't be many smart people to manage the business.

TEACHER—And if we didn't have to go, most of us would stay away at least a part of the time, wouldn't we?

CLASS—Yes.

TEACHER—Would being poorly managed make us a poor nation?

STUDENT—Yes.

TEACHER—We live in a wonderful country. Do you think other countries would object if we did not manage ours well?

STUDENT—If we didn't go to school we would be stupid and some other country might make war on us.

TEACHER—We seem to have decided, then, that if we did not have to go to school we would soon become a stupid nation and finally some other nation would force us to learn and become useful. That is a long statement, I will write it on the board and if there are no objections we will make that part of our books.

Now that is done, rule a line as before. Who can tell us something we would like to do but are not allowed to do?

STUDENT—I would sleep late if I could.

TEACHER—That is good. Who can tell me what would happen if we all slept late?

STUDENT—We wouldn't get to work on time and could n't make as much.

TEACHER—Then there would n't be enough made to go around, would there?

STUDENT—There is plenty in the stores, but we have n't enough money to buy it with.

TEACHER—The amount of money in the country is limited. Perhaps if we should make more, things would be cheaper and we could buy more with what money we have.

STUDENT—Dad says that if we work too fast they will close the factory.

TEACHER—That may sometimes be true, but there should be a better way to hold our jobs than by cutting down production as that only makes matters worse. Who can tell me why?

STUDENT—Would it make things cost more?

TEACHER—Yes, it probably would. We have started talking about a very difficult problem. You see, the manufacturer sells his product to the wholesaler and the wholesaler sells to the stores. Each of these has to pay rent, light, heat, insurance, taxes, repairs, salesmen, and make a living. These items add considerable to what we have to pay for things, but so far no one has devised a better system of selling. Now, if the manufacturer increases the efficiency of his plant and sells his product cheaper we have to pay the same until the wholesaler and retailer both cut their prices. If these stores do not cut their prices then we do not have enough money to buy the additional output which may cause the factory to close until the stores have sold what has been made. Some manufacturers stamp a retail price on their product, while others advertise theirs at a given price. This helps to assure us of buying at a reasonable price. We know that the more efficient manufacturing is, the cheaper prices can be. The cheaper prices are, the more we can buy. It is buying that keeps the factories running and efficiency and fair dealing that make wealth for us all.

We were trying to find what would happen if every one slept late, who can tell me?

STUDENT—We would get lazy.

TEACHER—Then what would happen?

STUDENT—Then there would not be enough food and clothes and houses made.

TEACHER—Then this seems to be the answer: If people could sleep late we would soon become shiftless and without routine, and thus unable to produce the things we need to make us comfortable. Is that right?

CLASS—Yes.

TEACHER—When you have that written will each one of you try to make a definition of the kind of liberty we really want? Then as a class we will make up the best one we can to write in at the bottom of the page.

GENERAL LESSONS: VOCATIONAL GUIDANCE

The following are topical Outlines XII and XVII from Thirty Preliminary Lessons in Vocational Guidance by J. Henry Holloway, administrative assistant in the East Side Continuation School. The lessons are planned to supplement those in Vocational Guidance that require information peculiar to any one vocation that the pupil may be preparing for. The outlines are for the use of the teacher and offer suggestion as to points that may be profitably considered. They are not prepared for use as individual instruction sheets.

XII. *The Importance of "The First Impression" in Seeking a Position*1. *The Written Application—*

If you saw an "ad" which ended with "Address R. S. News, Uptown," how would you answer the ad? Who is "R. S. News"? If 200 answer the "ad," how does the employer sift the candidates?

What would you say in the letter that would lead the employer to select you? How would you write? On what kind of paper? What if you forgot your address—unless the employer is a clairvoyant?

By what standards does employer inserting above "ad" judge you before an interview is possible?

What is best to do if you were "never good in letter writing, composition, spelling"?

2. *The Interview—*

If you are one of the "lucky (?) " ones who is called to see the boss, by what standards will you be judged? At what moment will your personal appearance count most? Just when will your good speech be your best ally? At what step will your qualifications become the important factor in deciding whether you are the candidate to get the job?

3. *The Job—*

When does the boss know whether he has made a wise choice in selecting you? What happens if he finds he has made a mistake?

Questions and Problems

1. An employer receives 200 letters in answer to an ad. How does he select the 4 or 5 he will send for to interview? How does the penmanship on the envelope determine the fate of many?
2. Discuss as aids to securing position: Penmanship, correct letter form, English, neatness, paper.
3. Place the following in the order of time when it is most important for making impressions:—speech, penmanship, neatness of clothes, punctuation, slouching, carelessness at the machine.
4. "Originality" is very valuable in letter writing for positions. Write a letter unlike the stereotyped letter of application.
5. Show that employers place varying emphasis on qualifications from standpoint of first impressions.

6. Show that the higher the type of work and (?) the better the salary, the more exacting is the employer.
7. For candidates who stand on line, how do personal appearance and being early rank in importance?
8. Show that first impressions may not be correct.
Of what importance are first impressions? What are the two most important factors in determining the first impression?
How can speech and appearance be improved?

XVII. How to Get Fired

Topics to be offered the pupils for criticism and discussion:

1. Use employer's time, with or without notice, to visit your sick relative (real or imaginary) at his home or in the hospital. Then take a day off to attend the funeral. (Note: Don't bury the same relative more than three or four times.)
2. Be ill frequently. Get real or imaginary headaches, or keep the one bad tooth. The boss likes to think he is employing hospital cases.
3. Be late. The business may go along just as well without you—the boss will not mind paying you.
4. Offer the old excuses. If late, tell the boss you were in the "subway block" or that you "had to go to the doctor's." He has heard this so often he may excuse you without thinking.
5. Loaf on the job. If he asks why you were out so long, tell him you "couldn't find the place."
6. Be a practical joker. If he doesn't see well, put his hat on his chair. (He will buy a new one on the salary you would otherwise receive the following week.)
7. Be "fresh" to the employer or the foreman. Give back talk—this is a free country and no one can prevent you looking for a new job.
8. Look around for some one else's business that you would like to attend to. Then go to it. The business for which you are paid can wait.
9. Try to run the whole show. Maybe the boss who has had you only three weeks doesn't know that you can run the business better than he, although he has been at it some 40 years and is a bank trustee, a director in three companies and comes to work at 11 each morning in a limousine. If you were not his errand boy, he would see more of you and know your worth.
10. Be sure to use loud, abusive, profane, indecent, cussing language. Make a big noise. Show who you are. Show the boss how you stand up for your "rights." He will be interested. He will speak to the cashier about you and give you salary due in advance of regular pay day.
11. Take the loose change you find around or other small articles. Shoot the rubber bands and paper fasteners around—they are cheap. Besides, if you happen to hit the bookkeeper, there may be a little excitement.
12. Don't think of keeping clean. "It's not the boss's business anyway—is it?" Why should he notice unclean hands and dirty finger

nails, muddy shoes, and soiled clothes? Maybe he never heard the story of Pig Brother.

13. Tell a pretty story or look out the window while handling sharp tools or working at machinery. The boss probably keeps a First Aid kit, and he can get the hospital by phone.
14. Laugh when the boss slips or has an accident. He will give you time off to enjoy it at your leisure.

Questions:

1. Considering the loss of time involved compare the job-hobo with the child who is left back in school.
2. What advantages may result from changing one's position?
3. Make a list of the disadvantages of being fired.
4. How may "being fired" affect securing a new position?
5. How is a young person to find the job for which he is fitted?
6. How is a young worker to get the permanent position that will lead to his life vocation?
7. What is your answer for the young worker who says "I don't care, I can get another job"?

APPENDIX C

COURSES OF STUDY

1. Electric wiring.
2. Auto mechanics.
3. Machine shop.
4. General mechanics.
5. Wood-working.
6. Office practice and bookkeeping.
7. Retail selling.
8. Home cooking and care of home.
9. Home sewing.
10. Home millinery.
11. Power machine operating.
12. Novelty work.

ELECTRIC WIRING

By William J. Rickerby, Frank R. White, Paul Augustine, East Side Continuation School

UNIT 1

JOB

1. Making of splices or joints in annunciator wire.
2. Simple bell circuit.
3. One bell operated from two push buttons.
4. Two bells in parallel operated from one push button.
5. A number of bells in parallel operated by any number of push buttons.
6. Single stroke bells connected in series.
7. Bells in series to ring vibrating.
8. Grouping of battery cells.
9. Three bells, each rung independently by its own push button.
10. Series arrangement, bells 1 and 2 operated by one button, bells 2 and 3 operated by another button.

UNIT 2

JOB

1. Multiple series grouping of cells.
2. Multiple combination of bells and buttons.
3. Bell to operate single stroke from one station and vibrating from another.

4. Bells operated from desk push.
5. Three bells rung separately by means of push button and three point switch.
6. Four line return call system.
7. Three line return call system.
8. Two line return call, using two point buttons.
9. Bell rung momentarily, or continuously from either of two stations by means of two point switches.
10. Two bells each rung by its own button, and another bell rung by two buttons.

UNIT 3

JOB

1. Two line return call system.
2. Two stations with bell, battery, and three point strap key at each, so arranged that bells ring in series, with only two wires between stations.
3. Two stations with bell, battery, and three point strap key at one station and battery, bell, and two three-point strap keys at the other station, with two wires between stations.
4. Three vibrating bells rung simultaneously from any of three stations, and one of the bells to be rung independently from a fourth station.
5. Master-call signal, suitable for schools, hospitals, factories, etc.
6. Master-call signal, suitable for schools, hospitals, factories, etc.
7. Front and rear door call system using bells of different sounds.
8. Two bells operated from one button; one bell may be disconnected by means of a switch.
9. Bell in kitchen operated from button at basement door; bell on second floor operated from vestibule door.
10. Private residence call bell system, using bells of different sounds.
11. Call bell and door opener system for a two-family house, using the distinct bell and battery wiring method.
12. Front and rear door call bell and door opener system for a three-family house, using the distinct bell and battery wiring method.

ELECTRIC WIRING

By Frank R. White, East Side Continuation School

"FISHING"

JOB

1. General instructions. Practice in fishing.
2. Install a vibrating bell on wall operated by a push button beneath the bell.
3. Install a bell in one room, operated by a push button located in next room.
4. Install a return call system between two adjoining rooms.

5. Install a bell in a room, operated by a push button at the front door. Install a single point switch under the bell so that the circuit can be opened when desired.
6. Install two bells in a room, one bell operated from a push button at the outside door, the other by a button in next room.
7. Install an electric thermostatic fire-alarm in the ceiling of a room, to ring a bell in the next room.
8. Install a two station telephone system between two adjoining rooms.
9. Install a two station telephone between two adjoining rooms. Phone locations to be obtained from instructor.
10. Review questions.

AUTO MECHANICS

By Charles A. Kelly, Bronx Continuation School

UNIT 1

JOB

1. Frame measure.
2. Table of bolts and nuts.
3. Selecting and measuring of bolts and nuts.
4. Making square nut blank.
5. Making straight key.
6. Making woodruff key.
7. Making bushing key.
8. Removing tire.
9. Locating and drilling center holes.
10. Making center holes in round stock (lathe).
11. Squaring ends of stock in lathe.
12. Making bolt.

UNIT 2

JOB

13. Making square head bolt.
14. Making chain links.
15. Making clamp.
16. Removing front wheels.
17. Removing front axle.
18. Removing front spring.
19. Assembling front spring.
20. Replacing front spring.
21. Emergency brake adjustment.
22. Foot brake adjustment.
23. Removing rear spring.
24. Dismantling rear spring.

UNIT 3

JOB

25. Replacing rear spring.
26. Removing rear wheels.

27. Replacing rear wheels.
28. Removing differential.
29. Dismantling differential.
30. Reassembling differential.
31. Reassembling axle housing.
32. Replacing differential and axle housing.
33. Clutch adjustment.
34. Transmission band adjustment.
35. Removing transmission bands.
36. Relining transmission bands.

MACHINE SHOP PRACTICE

Try Out Course

By R. H. Greene, Schenectady Continuation School

1. Use of power hack saw.
2. Bench layout work for centers.
3. Use of drill press—centers and tap holes.
4. Use of lathe—rough turning on centers.
5. Use of lathe—facing.
6. Use of lathe—cutting off.
7. Bench layout of hex heads.
8. Use of shaper—shaping hex heads.
9. Use of milling machine—milling hex heads.
10. Use of lathe—facing ends between centers.
11. Use of lathe—finish turning, filing and polishing.
12. Use of lathe—facing to thickness, chamfering.
13. Use of lathe—rough threading, chasing with die.
14. Bench inspection, assembly and packing.
15. Use of lathe—chuck work, truing up, facing, drilling.
16. Pupil makes own selection of stock on similar project and makes
17. project unaided for test of ability.
- 18.

MACHINE SHOP PRACTICE

Occupational Preparatory Course

By R. H. Greene, Schenectady Continuation School

Use of lathe.

1. { Centering stock, facing ends and rough turning, taper turning with
2. { offset tailstock, filing and fitting taper to gauge, turning reliefs
3. { and point.
- Project: lathe center.

Use of lathe.

4. {Finish turning, rough threading, finish threading.
5. {Project: arbor:

Use of lathe and drill press.

6. {Rough and finish turning, left and right hand threading, spot drill-
7. {ing.
8. {Project: small shaft.
9. {Use of lathe.
10. {Chuck work, facing, boring, reaming, rough turning, taper turning
11. {with offset tailstock, drilling and tapping.
12. {Project: pulley.
13. {Use of lathe.
14. {Chuck work, facing, centering and drilling, boring, reaming, turn-
15. {ing on the mandrel, filing and polishing.
16. {Project: flange.
16. {Bench and drill press.
17. {Layout on bearing cap holes to be drilled, drilling.
17. {Bench and drill press.
18. {Layout on body casting holes to be drilled, drilling, tapping.
19. {Bench, drill press and lathe.
20. {Centering, turning, drilling and tapping, finish turning.
21. {Project: arm casting.
22. {Bench.
23. {Babbiting bearings, scraping, assembly.
24. {Use of lathe.
24. {Chuck facing and boring.
25. {Project: jack screw cap.
25. {Use of lathe.
26. {Chuck facing, threading, boring, threading, tapping.
27. {Project: jack screw body.

Use of lathe.

28. {Rough and finish turning, rough and finish threading.
29. {Project: jack screw.
30. Bench assembly, peening end of screw.
31. {Bench and drill press.
32. {Layout, drilling, chipping, filing, case hardening.
33. {Project: open end wrench.
33. {Bench and use of drill press, shaper, miller.
34. {Shaping square from round, milling to size, drilling, tapping, champ-
35. {fering, filing and polishing, knurling, threading and assembly.
36. {Project: parallel clamps.

GENERAL MECHANICS COURSE

By C. W. Wilkinson and D. L. Hancock, Schenectady
Continuation School

1. Use of oil-stones; sharpening tools.
2. { Making fly-screen; making frame with butt joint and corrugated
3. { fasteners; applying screen.
4. Cutting and fitting stop in garage sash; use of wood miter-box.
5. Making picture-frame from molding; fitting glass and back.
6. Six common knots; make a display card.
7. Cutting off window-shade and roller; hanging shade.
8. Making extension cord for one lamp; for two lamps.
9. Glazing window-sash.
10. Operation of blow torch; making W. U. splice and soldering.
11. House wiring, using cut out for Edison base fuses and installing ceiling rosette with drop cord and socket.
12. Installing electric bell to operate with one button, either of two buttons, one button to operate two bells, two buttons operating separate bells with same batteries. Connecting batteries in series and parallel.
13. Use of hand drill press; taps and dies, use of bit stock drill and brace.
14. Repairing ordinary garden-hose.
15. Patching holes in pans and buckets with and without solder.
16. Repairing and installing common door lock.
17. Repairing water-faucet and cleaning trap.
18. Making and setting form for cement step.

WOOD-WORKING

Try Out Course.

By C. W. Wilkinson, Schenectady Continuation School

1. Measuring, sewing and planing to size, squaring.
2. Making screwed butt joint, boring and countersinking.
3. Shop drawing full size with material list.
4. Sharpening plane bits, meter sawing, boring.
5. Making housed joint.
6. Scale drawing, material list and figuring cost.
7. Measuring from center, rip sawing, cope sawing.
8. Cutting from rough stock, use of power planer.
9. Making cross-cap joint, duplication of parts, champfers.
10. Laying out and cutting octagon.
11. Rabbeting and use of Marsh mitering machine.
12. Beveling, assembling mitered parts, cutting glass.
13. } Rough and finish turning.
14. }
15. Making doweled edge joint.
16. Gluing edge joint, clamping, making battens.
17. Dadoing for battens and assembly.
18. Scraping, sanding, cutting square.

COMMERCIAL SUBJECTS

Elementary Commercial Practice

By R. A. Orr, Schenectady Continuation School

1. Purchasing Dept. Ordering stock, securing quotation, placing orders.
2. Purchasing Dept. Continued. Checking invoices with orders and prices. Daily warehouse receipts report.
3. Inventory—perpetual.
4. Voucher-making.
5. Voucher record.
6. Checks and check-book stub.
7. Mailing Dept. Nine steps in getting out circular matter.
8. Billing clerk.
9. Sales record clerk.
10. Drafts.
11. Notes.
12. Instalment sales record and record of payments.
13. Personal cash account.
14. Commercial abbreviations.
15. Bills of lading—straight and order.
16. Alphabetizing a short list of names.
17. Elementary rules for filing.
18. Elementary filing—filing cards behind guides.

Advanced Commercial Practice (Bookkeeping)

By R. A. Orr, Schenectady Continuation School

1. Journalizing.
2. Journalizing.
3. Journalizing.
4. Compound journal entries.
5. Purchase book.
6. Sales book.
7. Cash book.
8. Ledger. Construction and posting.
9. Posting purchase book.
10. Posting sales book.
11. Posting cash book.
12. Inventory—use—how obtained.
13. Inventory—how put to use in balancing books.
14. Profit and loss account.
15. Balance sheet—need and use.
16. Working sheet.
17. Financial statement.
18. Review.

Retail Store Service

By C. J. King, Schenectady Continuation School

1. } Store directory.
2. }

3. Factors in selling.
4. }
5. } The sale.
6. }
7. }
8. } Selling points and their presentation.
9. }
10. } Concluding the sale.
11. }
12. Mechanics of the sale.
13. Suggestive selling.
14. Route of the sales check.
15. Sales check errors.
16. Appearance and deportment of salesperson.
17. }
18. } Development of salesperson.
19. Speech and voice.
20. Ten commandments of salesperson—Dr. Frank Crane.
21. }
22. } The customer.
23. }
24. } Cotton.
25. }
26. } Notions.
27. }
28. } Care of stock.
29. }
30. Arrangement of stock.
31. Evolution of the department store.
32. Advertising.
33. Waste.
34. History of local department stores.
35. "Personal overtime."
36. Store organization.

HOME COOKING AND CARE OF APARTMENT

By Elizabeth K. Colegrove, Winifred R. Murnane, Gertrude Hertel,
East Side Continuation School

UNIT I

JOB

1. Introduction to home-making.
 - a. Weighing girls.
 - b. Meaning of home-making.
 - c. Preparation of food and serving.
 - d. Practical breakfast—cocoa and toast.
2. Breakfast concluded.
Selection of fruit, choice of cereals.

- General principles of marketing.
Introduction to budgeting.
Practical cooking—fruit and cereal.
3. Table setting and serving.
 - a. Duties of host, hostess, waitress.
 4. Luncheon—meat substitute and dessert.
 - a. Baked macaroni with cheese, rice or potatoes with cheese, baked or stewed apples.
 5. Laundry lesson.
 - a. Care of sink and tubs.
 - b. Steps in preparation for washing.
 - c. Sorting and mending.
 - d. Materials and utensils used.
 - e. Removal of stains.
 6. Luncheon II—scrambled eggs, creamed potatoes, apple sauce.
 7. Lunch-box—sandwiches, fruit, milk.
Varieties of bread and fillings.
 - a. Care of bread-box.
 - b. Selection of food in relation to food value.
 - c. Use of thermos bottle.
 8. Bed-making and care of a bedroom.
 9. Dinner I—beef loaf, creamed onions, corn-starch pudding.
 10. Dinner II—fish, fish sauce, stewed tomatoes, rennet custard.
 11. Dinner III—cream of tomato soup, croutons, French omelet, potato salad.
 12. Party—cake or cookies, cocoa, candy or ice-cream.
 13. Home care of metals and glass.
 14. Care of the child.
 - a. Sterilization of bottles.
 15. Personal hygiene, care of teeth, hair, nails, skin, nose, ears and feet.
 16. Invalid diet—liquid diet.
 17. Invalid diet—soft or light diet.
 18. Sunday night supper.

HOME SEWING

By Jessie R. Dutton, East Side Continuation School

UNIT I

Jobs—Machine lesson.
Camisole.
Bloomers.
Princess slip.

UNIT II

Jobs—Chemise.
Nightgown.
Apron (bungalow).

UNIT III

Jobs—One-piece dress.
Middy blouse.

UNIT IV

Jobs—Overblouse.
Skirt.

UNIT V

Wool dress.

HOME MILLINERY

By Kathleen FitzPatrick, East Side Continuation School

UNIT I

JOB

1. Hat-bag—cutting.
2. Hat-bag—making.
3. Open lining.
4. Tam-o'shanter.
5. Tam-o'shanter.
6. Shopping for a hat frame.
7. Covering a buckram frame.
8. Covering buckram frame (under side of brim).
9. Covering buckram frame (tip and side crown).
10. Trimming suggestions.
11. Finishing hat.
12. Renovating old hat.

POWER MACHINE OPERATING

By Yetta Styer, East Side Continuation School

The teacher has planned 40 lessons.

18 may be used as Unit I.

18 as Unit II.

Extras for those working more rapidly on choice made from any in Unit II.

Power Machine Operating

1. Points emphasized.
 - (a) Equipment.
 - (b) Names of parts of machine.
 - (c) Oiling parts of machine.
 - (d) Care of parts of machine.

2. Control of power.
 - (a) Regulating pressure on treadle.
 - (b) Starting and stopping machine at given points.
 - (c) Turning corners.
 - (d) Practice stitching on paper without thread.
3. Threading machine.
 - (a) Threading bobbin.
 - (b) Placing.
 - (c) Presser foot regulating tension.
 - (d) Practice stitching with thread.
4. Making work-bag.
 - (a) Measuring work-bag.
 - (b) Making guide line for stitching.
 - (c) Straight stitching $\frac{1}{4}$ inch spacing.
 - (d) Presser-foot as guide $\frac{1}{4}$ inch.
5. Work-bag.
 - (a) Stitching on bias $\frac{1}{4}$ inch spacing.
 - (b) Stitching on bias $\frac{1}{2}$ inch spacing.
 - (c) Plain seam $\frac{1}{4}$ inch.
 - (d) French seam $\frac{1}{4}$ inch sides.
6. Work-bag.
 - (a) Top hems ($1\frac{1}{4}$ inch hem).
 - (b) Open side edges on top hem.
 - (c) Stitching on edge.
 - (d) Placing draw tops.
7. Shape-apron (bungalow apron).
 - (a) Cutting with pattern.
 - (b) Placing pins.
 - (c) Pinning edges of seams evenly.
 - (d) French seam shoulder seams.
8. Shop apron.
 - (a) Placing of rick-rack braid on sleeves and neck.
 - (b) French seaming bias side seams.
9. Shop apron.
 - (a) Making tubular hem.
 - (b) Placing of pins in hem toward arm of machine.
 - (c) Placing small part of work toward arm of machine.
 - (d) Making pleats or folds in hems with bias side seams or gored garments.
 - (e) Hem (top) on pocket.
 - (f) Turning other edges of pockets.
10. Shop apron.
 - (a) Placing and stitching pocket.
 - (b) Measuring belt.
 - (c) Making belt.
 - (d) Turning belt.
 - (e) Placing belt.
 - (f) Sewing snappers.
11. Nightgown.
 - (a) Taking own measurements.
 - (b) Computing amount of material required.

- (c) Computing cost.
- (d) Cutting by drafting method.
- 12. Nightgown.
 - (a) $\frac{1}{8}$ inch hem on neck and sleeves.
 - (b) Avoid stretching of bias seams and round necks.
 - (c) Lace on neck and sleeves (pinning) and stitching.
- 13. Nightgown.
 - (a) French seam sides.
 - (b) Pin tubular bottom hem.
 - (c) Stitching hem on edge.
- 14. Combination step-ins.
 - (a) Cutting with pattern.
 - (b) Placing of gores when material is too narrow.
 - (c) Plain seam ($\frac{1}{4}$ inch) gores when both edges are selvage.
 - (d) French seam sides.
- 15. Combination step-ins.
 - (a) $\frac{3}{4}$ inch hem at top.
 - (b) $\frac{3}{8}$ inch hem at bottom.
 - (c) Stitching lace at top edge.
 - (d) Fancy stitch for finish on bottom hems.
- 16. Combination step-ins.
 - (a) Measuring shoulder-straps.
 - (b) $\frac{1}{4}$ inch hems on straps.
 - (c) Placing of shoulder-straps.
 - (d) Eyelet for ribbon.
- 17. Petticoat slip.
 - (a) Taking own measurements.
 - (b) Computing amount of material needed.
 - (c) Cutting with pattern.
- 18. Petticoat slip.
 - (a) French seams underarm.
 - (b) Plain seams ($\frac{1}{4}$ inch) on skirt (selvages).
 - (c) 1 inch hem at top stitching on edge.
 - (d) 3 inch hem on bottom straight hem.
- 19. Petticoat slip.
 - (a) Gathering skirt at side.
 - (b) Using largest stitch on machine for gathering.
 - (c) Using heavier thread in bobbin for gathering.
 - (d) Using gathering foot.
 - (e) French seaming skirt to camisole.
 - (f) Method of graduating the skirt seam.
- 20. Petticoat slip.
 - (a) Measuring shoulder-straps.
 - (b) Hemming shoulder-straps.
 - (c) Placing shoulder-straps.
 - (d) Eyelet for ribbon.
- 21. Negligée.
 - (a) Taking own measurements.
 - (b) Computing amount of material needed.
 - (c) Computing cost of material.
 - (d) Computing amount of ribbon or lace needed.

- (e) Computing cost of trimming.
- (f) Cutting with pattern.
- 22. Negligée.
 - (a) French seam shoulders.
 - (b) Plain seam sides (selvages).
 - (c) Pin hem at bottom.
 - (d) Stitch hem at bottom.
- 23. Negligée.
 - (a) Trimming of cuffs and collar
 - (b) Notching center of cuffs.
 - (c) Placing center with center of arm-hole or shoulder seam.
 - (d) Pinning and stitching of cuffs.
- 24. Negligée.
 - (a) Placing shoulder seams together and notching center of neck at back.
 - (b) Notching center of collar.
 - (c) Placing of notched centers together.
 - (d) Pinning seam from center outward.
 - (e) Stitching seam at neck line.
- 25. Negligée.
 - (a) Finishing edges at center front.
 - (b) Making rosette or bow.
 - (c) Tacking rosette or bow.
- 26. Negligée.
 - (a) Hemstitching or fancy hand stitch.
- 27. Straight line kimono dress.
 - (a) Taking own measurements.
 - (b) Computing material needed.
 - (c) Computing cost of material needed.
 - (d) Cutting dress with pattern.
- 28. Dress.
 - (a) Silk (or cotton) French seam shoulders.
 - (b) Wool plain seam shoulders.
 - (c) French piping on sleeves and neck.
 - (d) Cutting of piping (cross or bias material).
 - (e) Placing piping on neck.
- 29. Dress.
 - (a) Seaming sides.
 - (b) Pressing side seams open or basting until final pressing.
 - (c) Measuring and pinning hem.
 - (d) Basting hem.
 - (e) Hand sewing hem (silk, wool, cotton); can be machined.
- 30. Dress.
 - (a) Measuring belt and cutting.
 - (b) Sewing belt.
 - (c) Turning belt on rod.
 - (d) Basting belt beginning on seamed edge.
 - (e) Finishing open edge of belt.
- 31. Dress.
 - (a) Fancy stitching with color combination on neck and sleeves.

32. Hemstitching machine.
 - (a) Threading.
 - (b) Placing of bobbins.
 - (c) Care in raising of presser foot.
 - (d) Practice stitching.
33. Hemstitching.
 - (a) Hemstitching straight lines.
 - (b) Hemstitching, turning corners.
 - (c) Spacing using presser foot as guide.
 - (d) Following designs.
34. Over-blouse.
 - (a) Taking own measurements.
 - (b) Computing material needed.
 - (c) Computing cost of material.
 - (d) Cutting with pattern.
35. Blouse.
 - (a) Seaming shoulders.
 - (b) French piping on sleeves.
 - (c) French piping on neck.
 - (d) Seaming underarm.
36. Blouse.
 - (a) Measuring hip band.
 - (b) Cutting hip band.
 - (c) Notching center of bands.
 - (d) Notching center front and back.
 - (e) Placing and pinning centers together.
 - (f) Joining band to blouse with plain seam.
 - (g) Turning, pinning and stitching bands.
37. Dress with set-in sleeves.
 - (a) See layout of material on commercial pattern.
 - (b) Read information on pattern needed for special size.
 - (c) Lay out pattern on material, using cutting chart as a guide.
 - (d) Cutting of dress.
38. Dress.
 - (a) Join shoulder seams.
 - (b) Join underarm.
 - (c) Making skirt hem.
 - (d) Making sleeves.
39. Dress.
 - (a) Making cuffs and collar and pocket flaps.
 - (b) Setting on cuffs.
 - (c) Setting on collar.
40. Dress.
 - (a) Making belt.
 - (b) Making pockets.
 - (c) Placing pockets.
 - (d) Setting in sleeves.
 - (e) Finishing and tacking.

NOVELTY WORK

By Mary L. Deming, East Side Continuation School

The articles made in Novelty Units I and II.

- x Needle case { First piece of work choice of one of these two
x Darning case { articles, and then the girl chooses from the next
 four articles.
x Handkerchief case.
x Crochet case.
x Glove case.
Blotters.

Basket work-bag, cretonne.

Ribbon sewing case.

Ribbon pin case.

Ribbon sewing bag.

Cretonne sewing bag lined with sateen.

The average girl makes 3 or 4 of the *first 6* articles as the work of Unit I.

The average girl makes 3 or 4 or even 5 more articles from among the list as Unit II.

Many girls make 2 or more of the same cases. There are job sheets for those crossed and models for the others.

APPENDIX D

CONTINUATION SCHOOL FORMS

To provide for smooth running machinery in the necessarily complex organization of the part-time school, many forms have been devised. The following, however, cover the distinctive and essential features. It should be noted that the attendance record in New York City and Buffalo is kept by means of a visible index system, a most desirable method. The other forms are self-explanatory:

1. Attendance record (face)—New York City.
2. Attendance record (back)—New York City.
3. Attendance record (face)—Buffalo, N. Y.
4. Attendance record (back) Buffalo, N. Y.
5. Attendance record—Schenectady, N. Y.
6. Case history—Stockton, Calif.
7. Report on visit—New York City.
8. Report on visit—Los Angeles, Calif.
9. Notice of absence—Buffalo, N. Y.
10. Attendance certificate—New York City.
11. Attendance certificate—Buffalo, N. Y.
12. Make-up record—Buffalo, N. Y.
13. Unit card—New York City.
14. Honor certificate—Los Angeles, Calif.
15. Diploma—New York City.

549

ATTENDANCE RECORD														
YR.	192			192			192			192				
JAN														
FEB														
MAR														
APR														
MAY														
JUNE														
JULY														
AUG														
SEP														
										CLASS				
										1	8			
										2	7			
										3	6			
										4	5			
										5	10			
										BIRTHPLACE				
										ADMITTED		MO. DA. YR.		
										FROM P. S.				
										CAUSE OF LEAVING				
<div style="border: 1px solid black; height: 100px; margin-top: 10px;"></div>														
OCT										TRANSFER FROM CONT. SCHOOL CLASS				
NOV														
DEC														
	PRES.		ABS.		PRES.		ABS.		PRES.		ABS.			
EMPLOYMENT RECORD														
NO.	BEGUN	TERMIN.	EMPLOYER				LOCATION				BUSINESS	PAID		
1														
2														
3														
4														
5														
6														
7														
8														
	NO.	STREET				FL.	BOR.	NO.	STREET				FL.	BOR.
HOME ADDRESS														
FAMILY NAME				GIVEN NAME				PARENT (GUARD.)				DATE OF BIRTH		
<div style="border: 1px solid black; height: 100px; margin-top: 10px;"></div>														

Read Visible Card Index Pat. May 14, 1912. Rand Co., Inc., North Tonawanda, N. Y., U. S. A.

Typewrite on the perforated line above then cut off ON THE LINE

Continuation Schools, Board of Education, New York City

ATTENDANCE RECORD (FACE)—NEW YORK CITY

NAME		ADDRESS																SEC.												NO.											
Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Total
FIRST YEAR																																									
ENDING																																									
SECOND YEAR																																									
ENDING																																									
THIRD YEAR																																									
ENDING																																									
FOURTH YEAR																																									
ENDING																																									
NAME																																									
ADDRESS																																									
SEC.																																									
NO.																																									

ATTENDANCE RECORD (FACE)—BUFFALO, N. Y.

DAY SCHOOLS FOR YOUNG WORKERS

L. C. NO.	DATE	Date of Birth	VOCATIONAL PREFERENCE	DATE	SECTION	DAY & HOUR	TEACHER
1			1				
2		Grade Last Enrolled	2				
3		School "	3				
4		Date of leaving School	4				
5		Birth Place	5				
6		Parent or Guard.	6				
1		EMPLOYERS					
2							
3							
4							
5							
6							
7							
8							
9							
10							

Form 24 P. 1.

ATTENDANCE RECORD (BACK)—BUFFALO, N. Y.

PUPIL'S ATTENDANCE RECORD

PUPIL'S ATTENDANCE RECORD																
DATE OF ENTRY		DATE OF LEAVING											REASON			
Code	Years	Wks	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Times Tardy	Days Pres.	Days Abs.	No. Made up
Absences --Unexc abs. V Vacation T Tardy Q Quarantine	19.....	1														
		2														
		3														
	19.....	4														
		5														
P Family Ill. P Pers. Ill. R Relig. Hol. R Empl. Req. M Made Up	19.....	1														
		2														
		3														
	19.....	4														
		5														
Withdrawals WP Phys. Cert. WD Death WT Transfer WL Mov. away WC Committed	19.....	1														
		2														
		3														
	19.....	4														
		5														
W17 Leg. age WS Ent. serv. WN Not in city WM Married WO Off roll	19.....	1														
		2														
		3														
	19.....	4														
		5														

ATTENDANCE RECORD—SCHENECTADY, N. Y.

STOCKTON (CALIF.) CASE RECORD

DEPARTMENT OF PART-
TIME EDUCATION
STOCKTON HIGH SCHOOL
Office, 340 E. North Street
High School Bldg. Phone 1941
STOCKTON, CALIF.

APPLICATION FOR
SCHOOL ENROLLMENT
CERTIFICATE PERMIT
TO WORK

IDENTIFICATION

1. What is your name?..... Boy or girl.....
Give full name
2. Where do you live?Telephone No.....
3. Where were you born?Date of birth....., 19....
Month—day

FAMILY

4. What is your father's name?Place of his birth.....
5. Where does he live? His occupation.....
6. Your mother's name?Place of her birth.....
7. Where does she live?Her occupation.....
8. How many older sisters have you?....How many older brothers?....
9. How many younger sisters have you?...How many younger brothers?...
10. Are you helping to support your parents?...Your brothers or sisters?...
11. If you have no parents living, who is your guardian?
12. Where does he or she live?

OCCUPATION

13. Are you employed at present?
- If you are not employed what kind of work would you like?.....
14. Give name of firm you work for.....
15. Give address of firm you work for.....Phone No.
16. In what department do you work?
17. Who is your department head or foreman?
18. What is the payroll name of your job?
19. What are the chief duties on this job?
-
20. How many weeks have you been employed on this job?
21. What hours do you work?.....What is your weekly wage?.....

SCHOOLING

22. How many different schools have you attended?

23. Give below the names of the last two schools you attended, their location, the date you left each, and the grade you completed in each.

Name of School	Location of School	Date Left	Grade Completed

24. Give a list of all the special subjects you have studied such as Typing, Bookkeeping, Stenography, Machine Shop, Auto work, Agriculture, etc.

.....

25. What subjects did you like best in school?

26. What would you like to study now?

27. Are you doing any special study such as night school or correspondence work?

.....

28. Do you speak any foreign language?

PAST EMPLOYMENT

29. How many different jobs have you held?

30. State below the last three jobs you have held

From	To	No. of Weeks	Name of Firm	Location	Kind of Work

31. At what kind of work have you been most successful?

PART-TIME SCHOOL

32. What days can you attend part-time school?.....Hours.....

33. The Counselor will assign you to class as follows (do not write below)

Day and hoursSubject.....

PlaceTeacher.....

DAY SCHOOLS FOR YOUNG WORKERS

OFFICE RECORDS

NOTE: DO NOT WRITE ON THIS PAGE

RECORDS OF PART-TIME SCHOOL

Year	Subject	Hr. Week	Grade	Remarks	Teacher

PERSONAL ANALYSIS

Scholarship	Habits
Punctuality	Industry
Courtesy	Physique
Perseverance	Height
Accuracy	Weight
Honesty	Sight
Self-reliance	Hearing
Initiative	Other Defects
Leadership	Remarks
.....

RECORD OF EMPLOYMENT FOLLOWING THIS REGISTRATION

Date Started	Employer	Address	Kind of Work	Wage	Left	Reason

REPORT ON VISIT EAST SIDE CONTINUATION SCHOOL CHRISTIE AND HESTER STS. NEW YORK FRANKLIN J. KELLER PRINCIPAL		A.M.	P.M.
Employer--Social Agency--Parent <small>WRITE LAST NAME FIRST</small>	Address		
Business			
Pupil's Last Name	First Name	Class	Day
Reasons for Visit:			
Kind of training pupil needs	Obtain teaching material		Prevent discharge
Kind of work pupil does	Establish cooperation		Obtain pay
Opportunities for advancement	Explain law		Prevent lateness
Discipline	Explain aims of school		Place pupil
Obtain social aid	Other reason		
Will employer take more of our pupils?			Have him telephone Dry Dock 2744
For what kind of work?			Is the place desirable?
What kind of school work will help the pupil on the job?			
			Beginning wage
Does the employer understand the use of the attendance certificate?			
Will he visit the school?			Is he sympathetic with the school?
To what trade organization does he belong?			
			over

REPORT ON VISIT (FACE)—NEW YORK CITY

<i>over</i>	
Result of Visit:	
Was visit successful?	Quality of pupil's service: Good Fair Poor
Opportunities for advancement: Good Fair Poor	Does employer pay pupil?
Further details of visit _____	
<i>Date</i> _____	<i>Teacher</i> _____

REPORT ON VISIT (BACK)—NEW YORK CITY

**Department of Part-Time Instruction
Los Angeles**

HOME VISIT

Student _____	Address, if changed, give new _____
Date of visit _____	Special reason, if any, for visit _____
Person interviewed _____	
<p>HOME CONDITIONS</p> <p>As far as possible, marking should be: 1, good; 2, fair; 3, poor; 4, very poor; V yes or correct</p>	
Financial _____	Atmosphere _____
Needy _____	Intellectual _____ Moral _____
Moderate _____	Social _____ Attitude toward _____
Prosperous _____	school _____ and Part-Time _____
Are parents living together? _____	
Father's occupation? _____	
(Remarks on other side) _____	Instructor _____

Form 19 P. T.

MAKE-UP
NOTICE

BUFFALO PUBLIC SCHOOLS

CENTRAL CONTINUATION SCHOOL

Date.....

The Law requires the attendance of

.....at the Part-Time School.

The records show an absence for the second consecutive session. Kindly send the pupil to us.....to make up the lost sessions or send a letter with a

satisfactory explanation. Report toRoom.....
Unless (s)he reports immediately to make up the lost sessions, the attendance department will be notified and legal action started.

By virtue of Chapter 531, of the Laws of 1919, any minor who fails to attend upon instruction as required is liable to lose the day school Permit held and to be compelled to return to day school. Parents who do not see that their children comply with this Law are liable to a FINE or IMPRISONMENT or BOTH. Employers who fail to permit children employed to attend Part-Time School are liable to a FINE or IMPRISONMENT or BOTH.

REGULATIONS OF STATE BOARD OF REGENTS—Minors who are absent from Part-Time School without a justifiable excuse, shall be required to make up time lost.

WM. J. REGAN, Director.

THIS NOTICE DOES NOT EXCUSE PUPIL FROM

REGULAR ATTENDANCE ON.....

NOTICE OF ABSENCE—BUFFALO, N. Y.

C. S. 4

EAST SIDE CONTINUATION SCHOOL

FRANKLIN J. KELLER, Principal

To the Employer:

This is to certify that your employee_____

attended school on_____

Unexcused Absences_____ Lateness_____

VOCATIONAL

Effort_____ Work_____ Conduct_____

ACADEMIC

Effort_____ Work_____ Conduct_____

Please demand this certificate each week. The school is located at Hester and Chrystie Streets. Telephone, Orchard 4003. If you wish any information, please call or write. We shall be glad to cooperate in every way.

When in Need of Junior Help, Please Call Our Employment Bureau:
Telephone, Dry Dock 2744

Teacher

SCHOOL YEAR 192 — 192		FORM 4 P. T.		September		October		November		December		January	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
15	16	17	18	19	20								

SHOW THIS CARD TO YOUR EMPLOYER	PART-TIME SCHOOL		This card certifies that the bearer, whose signature appears below, is registered at the Part-Time School in accordance with sec. 601 of the Educational Law and has attended as required for the weeks punched P. T.	
	PUPIL..... W. J. REGAN		Dir.	
		Signature		

February		March		April		May		June	
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

ATTENDANCE CERTIFICATE—BUFFALO, N. Y.

Form 21 P. T.

MAKE-UP RECORD

Date_____

Teacher.

is to make up time as follows:

(Pupil to attend all sessions cancelled)

Mon.	DATE	8-10	10-12		1-3	3-5	
Tues.		8-10	10-12		1-3	3-5	
Wed.		8-10	10-12		1-3	3-5	
Thurs.		8-10	10-12		1-3	3-5	
Fri.		8-10	10-12		1-3	3-5	
Sat.		8-10	10-12		1-3	3-5	

As time is made up, check each period with your initials in blank space following hours and return this slip to office when schedule has been completed. If pupil does not appear on date specified, hold slip for 2 weeks and then return unchecked.

WM. J. REGAN, Director.

DAY SCHOOLS FOR YOUNG WORKERS

BOARD OF EDUCATION
The City of New York
EAST SIDE CONTINUATION SCHOOL
Hester and Chrystie Streets
Franklin J. Keller, Principal

This is to certify that

.....
has completed Unit.....in the.....Dept.

.....
Academic Teacher

.....
Vocational Teacher

Date.....

.....
Principal

UNIT CARD (FACE)—NEW YORK CITY

JOBS IN UNIT

- | | |
|--------|---------|
| 1..... | 7..... |
| 2..... | 8..... |
| 3..... | 9..... |
| 4..... | 10..... |
| 5..... | 11..... |
| 6..... | 12..... |

A certificate will be awarded upon completion of 6 units covering a normal period of 80 weeks, subject to excellent attendance, punctuality and conduct.

UNIT CARD (BACK)—NEW YORK CITY

DEPARTMENT OF PART-TIME INSTRUCTION

CITY HIGH SCHOOL DISTRICT
LOS ANGELES CALIFORNIA

THIS HONOR CERTIFICATE IS GRANTED TO

**A STUDENT IN THE LOS ANGELES PART-TIME HIGH SCHOOL. IN RECOGNITION
OF PERFECT ATTENDANCE AND EARNEST EFFORT DURING THE SEMESTER**

ENDING _____ 192_____



DIRECTOR

INSTRUCTOR

HONOR CERTIFICATE—LOS ANGELES, CALIF.

BOARD OF EDUCATION
THE CITY OF NEW YORK

EAST SIDE CONTINUATION SCHOOL

THIS DIPLOMA IS AWARDED TO
FOR EXCELLENT CHARACTER, SATISFACTORY ATTENDANCE AND
SUCCESSFUL COMPLETION OF THE CONTINUATION SCHOOL COURSE.
THE FOLLOWING VOCATIONAL SUBJECTS WITH THE RELATED ENGLISH,
MATHEMATICS, HYGIENE AND CIVICS HAVE BEEN STUDIED:

SUBJECTS HOURS



John J. [Signature]
PRESIDENT, BOARD OF EDUCATION

[Signature]
SUPERINTENDENT OF SCHOOLS

ASSOCIATE SUPERINTENDENT

MEMBERS OF CONTINUATION AND EVENING SCHOOLS

PREPARED

192

DIPLOMA—NEW YORK CITY

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